

LFRSA Wessex Version 1.0 Advice issued: March 2014
BATH & NORTH EAST SOMERSET COUNCIL LOCAL FLOOD RISK STANDING ADVICE

Notes: The above advice is **only applicable to Bath & North East Somerset Council and should not be used for other Local Authority areas.**
Please note that differing Local Flood Risk Standing Advice has been delivered to all Local Authorities in the Wessex Area.

G1	H1	J1	K1	L1	M1	N1
Development Category	Development (including boundary walls etc.) within 8 metres of the top of a bank of a Main River / Flood Defence	Development (including boundary walls etc.) within 8-20 metres of the top of a bank of a Main River / Flood Defence	Includes culverting or control of flow of any river or stream	Within Flood Zone 3	Within Flood Zone 2	Within Flood Zone 1
G2	H2	J2	K2	L2	M2	N2
Residential and Non-residential extensions with a footprint of less than 1000 sq. Metres	Consult EA with FRA on Flood Defence Requirement	No Consultation – see standard comments LFRSA Sheet EX1	Consult EA with the FRA showing design of any culvert or water control structure	Local Standing Advice MAY apply LFRSA Sheet EX2	Local Standing Advice MAY apply LFRSA Sheet EX2	No Consultation with the EA required on flood risk grounds
G3	H3	J3	K3	L3	M3	N3
Changes of Use proposals (excluding self contained ground floor or basement units)	No Consultation with the EA required	No Consultation with the EA required	No Consultation with the EA required	Local Standing Advice MAY apply – choose from list LFRSA Sheet COU1	Local Standing Advice MAY apply LFRSA Sheet COU1	No Consultation with the EA required
G4	H4	J4	K4	L4	M4	N4
Agricultural development less than 1000 sq. Metres (excluding new or amended slurry or silage facilities)	Consult EA with FRA on Flood Defence Requirement	No Consultation – see standard comments LFRSA Sheet EX1	Consult EA with the FRA showing design of any culvert or water control structure	Local Standing Advice MAY apply – choose from list LFRSA Sheet AGR1	Local Standing Advice MAY apply LFRSA Sheet AGR1	No Consultation with the EA required on flood risk grounds. Surface Water Management good practice advice
G5	H5	J5	K5	L5	M5	N5
Operational Development less than 1 hectare	Consult EA with FRA on Flood Defence Requirement	No Consultation – see standard comments LFRSA Sheet EX1	Consult EA with the FRA showing design of any culvert or water control structure	Consult EA with FRA and confirmation that Sequential Test has been passed; and where required Exception Test applied	Local Standing Advice MAY apply – choose from list LFRSA Sheet OP<1	No Consultation with the EA required on flood risk grounds. Surface Water Management good practice advice
G6	H6	J6	K6	L6	M6	N6
Operational Development of 1 hectare or greater	Consult EA with FRA on Flood Defence Requirement	No Consultation – see standard comments LFRSA Sheet EX1	Consult EA with the FRA showing design of any culvert or water control structure	Consult EA with FRA and confirmation that Sequential Test has been passed; and where required Exception Test applied	Consult EA with FRA and confirmation that Sequential Test has been passed; and where required Exception Test applied	Consult EA with FRA

More than one category may apply and due to other constraints consultation may still be require with the Environment Agency

Sheet EX1

Development (including boundary walls, etc.) within 8 – 20 metres of the top of a bank of a Main River or flood defence.

This advice is for all development (including boundary walls etc.) within 8-20 metres of the top of a bank of a Main River or Environment Agency flood defence

We recommend that:

Planning Authorities:

- Include the following informatives

Flood Defence Consent

INFORMATIVE

Under the terms of the Water Resources Act 1991 and the Land Drainage Byelaws, the prior written Flood Defence Consent of the Environment Agency is required for any works on, or within 8 metres of the landward toe of any Environment Agency designated flood defence structure(s). It is common in larger river systems, or tidal areas, for Environment Agency flood defences to be located in excess of 8 metres from the main channel or coastline, and greater than 20 metres in some instances.

Flood Defence Consent will also be required should any site/site infrastructure works take place in, under, over or within 8 metres of a designated main river.

To find the location of Environment Agency flood defence structures, main rivers and further information can be found on our [Flood Maps](#).

The need for Flood Defence Consent is over and above the need for planning permission.

To discuss the scope of the controls and to obtain an application form please contact the local Environment Agency office on 03708 506 506.

Pollution Prevention During Construction

INFORMATIVE

Safeguards should be implemented during the construction phase to minimise the risks of pollution from the development. Such safeguards should cover:

- the use of plant and machinery
- oils/chemicals and materials
- the use and routing of plant and vehicles
- the location and form of work and storage areas and compounds
- the control and removal of spoil and wastes.

The applicant should refer to the Environment Agency's Pollution Prevention Guidelines at:

<http://www.environment-agency.gov.uk/business/topics/pollution/39083.aspx>.

End of comment – [return to Matrix](#)

Sheet EX2

Residential and Non Residential extensions (joined to existing buildings and buildings ancillary to the existing buildings, but not joined) less than 1000sq.metres in Flood Zones 2 and 3.

This guidance is for domestic extensions and non-domestic extensions where the additional footprint created by the development does not exceed 1000 sq. metres. **It should NOT be applied if an additional dwelling would be created.** In such cases for Flood Zone 2 refer to local standing advice for operational development : OP<1, for those in Flood Zone 3 it will be necessary to consult the Environment Agency.

We recommend that:

Planning Authorities:

- Check the planning application to ensure that the mitigation measures from the table below have been incorporated.
- To condition the building to be used only for ancillary use and to remove permitted development rights.
- Include Flood Defence Consent Informative if within 8 -20 metres of a main river or flood defence (see [Sheet EX1](#))

Applicant to choose one or other of the flood mitigation measures below	Applicant to provide the LPA with the supporting information detailed below as part of their FRA	LPA should satisfy themselves with regard to the comments below.
<p>Floor levels within the proposed development will be set no lower than existing levels AND, flood proofing of the proposed development has been incorporated where appropriate</p> <p>Or; Floor levels within the extension will be set 300mm above the known or modelled 1 in 100 annual probability river flood (1%) in any year. This flood level is the extent of the Flood Zones.</p>	<p>This must be demonstrated by a plan that shows finished floor levels relative to the known or modelled flood level. All levels should be stated in relation to Ordnance Datum¹</p> <p>Applicant is to indicate that flood resilience/ resistance and emergency escape measures/ procedures have been incorporated where possible. This applies to any parts of the building that are situated below 1 in 100 annual probability river flood (1%) level in any year (including an allowance for climate change).</p> <p>Details of any flood proofing / resilience and resistance techniques, to be included in accordance with 'Improving the flood performance of new buildings' CLG (2007)</p>	<p>LPA's role:</p> <ul style="list-style-type: none"> • Ensure that the level information has been provided and the standards set out opposite have been met. • Look for assurance from the applicant that resilience/resistance and evacuation procedures have been addressed in accordance with the requirements opposite. Seek assurance if not already provided. Cross check the planning application with the Local Plan. Consultation with the local authority Building Control (flood resilience/ resistance) and Emergency Planning (evacuation) department is recommended.
<p>Management of surface water Applicant is to indicate that surface water will be managed in accordance with the following standards:</p> <ul style="list-style-type: none"> • Specific requirements for managing surface water set out in an adopted Strategic Flood Risk Assessment and/or Surface Water Management Plan produced by the Local Planning Authority. • Surface water run-off will be controlled to ensure no flooding of property and no 		<p>LPA's role: Look for/seek assurance from the applicant that surface water will be managed in accordance with the requirements opposite. Cross check the planning application with the Local Plan. Consultation with the local authority Building Control department is recommended. Paragraph 103 of NPPF states that LPAs should in determining planning applications give priority to</p>

<p>increase in surface water run-off from the site to a watercourse or receiving water body compared to the existing pre-application run-off rate in a 1 in 100 year storm event (1% chance in any one year) plus an appropriate allowance for climate change (Flood Risk Practice Guide paragraphs 5.51 and 5.54)</p> <ul style="list-style-type: none"> · Meets the requirements of Approved Document Part H of Building Regulations 		<p>the use of SuDS.</p>
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1 Ordnance Datum or the abbreviation 'OD' is the mean level of the sea at Newlyn in Cornwall from which heights above sea level are taken. The contour lines on Ordnance Survey maps measure heights above OD for example, though these are not accurate enough for a flood risk assessment.

Subterranean/basement extensions

Due to the risk of rapid inundation by floodwater basements should be avoided in areas at risk of flooding. The LPA may hold additional guidance for basement extensions.

Self-contained basement dwellings are 'highly vulnerable' development and should not be permitted in Flood Zone 3. We are **opposed** to these developments.

Permeable paving and changes to permitted development rights for householders

On the 1st October 2008 the General Permitted Development Order (GPDO) in England was amended by the Government (Statutory Instrument 2008 No. 2362).

One of the changes introduced by the GPDO amendment is the removal of permitted development rights for householders wishing to install hard surfacing in front gardens which exceeds 5sq. Metres (i.e. 1m x 5 m) without making provision to ensure permeability. This means that use of traditional materials, such as impermeable concrete, where there is no facility in place to ensure permeability, requires an application for planning permission.

In order to help and advise householders of the options for achieving permeability and meeting the condition for permitted development status the Department for Communities and Local Government (CLG) has produced guidance on permeable paving which can be found on the following link <http://www.communities.gov.uk/publications/planningandbuilding/pavingfrontgardens>

The Environment Agency supports the GPDO amendment as it is in line with the recommendations of the Pitt Report regarding the need to better tackle the impact of surface water flooding. However, Local Planning Authorities should determine these applications in accordance with the CLG guidance without consulting the Environment Agency.

End of comment - [return to Matrix](#)

Sheet COU1

Change of Use applications (excluding self contained ground floor or basement residential dwellings)

This guidance is for Changes of Use applications. It should NOT be applied if a self contained ground floor and basement dwelling is being created. In such cases consult the Environment Agency.

We recommend that:

Planning Authorities:

- Check the planning application to ensure that the mitigation measures from the table below have been incorporated.
- Include Flood Defence Consent Informative if within 8 metres of a main river or flood defence. (see [Sheet EX1](#))

Applicant to confirm the flood mitigation measures below	Applicant to provide the LPA with the supporting information detailed below as part of their FRA	LPA should satisfy themselves with regard to the comments below.
<p>Floor levels within the proposed development will be set no lower than existing floor levels AND, the building shall have a design that is resilient / resistant to the design flood level.</p> <p>Wherever possible floor levels should be raised.</p>	<p>This must be demonstrated by a plan that shows finished floor levels within the proposed development will be set no lower than existing floor levels.</p> <p>Details of any flood proofing / resilience and resistance techniques, to be included in accordance with 'Improving the flood performance of new buildings' CLG (2007)</p>	<p>LPA's role:</p> <ul style="list-style-type: none"> • Ensure that the level information has been provided confirms floor levels are no lower than existing. • Look for/seek assurance from the applicant that resilience/ resistance and evacuation procedures have been addressed in accordance with the requirements opposite. Cross check the planning application with the Local Plan. Consultation with the local authority Building Control (flood resilience/ resistance) and Emergency Planning (evacuation) department is recommended.

End of comment - [return to Matrix](#)

Sheet AGR1

Agricultural Development up to 1000sq.metres in Flood Zones 2 and 3 less than 1 hectare.

This guidance is for agricultural development (excluding new or amended silage and slurry facilities) where the additional footprint created by the development does not exceed 1000 sq. metres. The development should be greater than 20 metres from any watercourse. It should NOT be applied if an additional agriculturally tied dwelling is being created. In such cases for Flood Zone 2 refer to local standing advice for operational development : OP<1, for those in Flood Zone 3 it will be necessary to consult the Environment Agency.

We recommend that:

Planning Authorities:

- Check the planning application to ensure that the mitigation measures from the table below have been incorporated.
- To condition the building to be used only for agricultural use and to remove permitted development rights.
- Include Flood Defence Consent Informative if within 8 metres of a main river or flood defence. (see [Sheet EX1](#))

Applicant to confirm the flood mitigation measures below	Applicant to provide the LPA with the supporting information detailed below as part of their FRA	LPA should satisfy themselves with regard to the comments below
<p>Floor levels within the proposed development will be set no higher than existing ground levels AND, the building shall have a floodable design (e.g. open sided) that is resilient but also allows flood water to enter/flow through.</p> <p>Any excavated material from construction must be removed to a location outside of the flood zones 2 and 3.</p>	<p>This must be demonstrated by a plan that shows finished floor levels relative to the existing ground level. All levels should be stated in relation to Ordnance Datum¹</p> <p>Applicant is to indicate that flood resilience has been incorporated where possible and that flood water is capable of passing through the structure.</p> <p>Details of any resilience to be included in accordance with 'Improving the flood performance of new buildings' CLG (2007)</p> <p>The applicant must indicate clearly that they are satisfied the impact on their development is acceptable to <i>themselves</i>.</p>	<p>LPA's role:</p> <ul style="list-style-type: none"> • Ensure that the level information has been provided and the standards set out have been met. • Look for assurance from the applicant that resilience has been addressed in accordance with the requirements opposite. Seek assurance if not already provided. Consultation with the local authority Building Control is recommended.
<p>Management of surface water</p> <p>Applicant is to indicate that surface water will be managed in accordance with the following standards:</p> <ul style="list-style-type: none"> • Only clean surface water can be discharged to ground or surface water. Any contaminated surface water must be treated and managed prior to any discharge. • Surface water run-off will be controlled to ensure no flooding of property and no increase in surface water run-off from the site to a watercourse or receiving water body compared to the existing pre-application run-off rate in a 1 in 100 year storm event (1% chance in any one year) plus an appropriate allowance for climate change (Flood Risk Practice Guide) 		<p>LPA's role:</p> <p>Look for/seek assurance from the applicant that surface water will be managed in accordance with the requirements opposite. Seek assurance if not already provided. Consultation with the local authority Building Control department is recommended. Paragraph 103 of NPPF states that LPAs should, in determining planning applications, give priority to the use of SuDS.</p>

BATH & NORTH EAST SOMERSET COUNCIL LOCAL FLOOD RISK STANDING ADVICE

paragraphs 5.51 and 5.54) · Meets the requirements of Approved Document Part H of Building Regulations		
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¹ Ordnance Datum or the abbreviation 'OD' is the mean level of the sea at Newlyn in Cornwall from which heights above sea level are taken. The contour lines on Ordnance Survey maps measure heights above OD for example, though these are not accurate enough for a flood risk assessment.

End of comment - [return to Matrix](#)

Sheet OP<1

Wessex Local Flood Risk Standing Advice

This advice is an updated and local version of the Environment Agency **National Flood Risk Standing Advice**, which includes printable and help pages that can be found [here](#)

Within Flood Zone 2 the following Flood Risk standing advice is available:

- More vulnerable development (excluding Landfill/waste facilities & caravans) up to 1ha in size. [click here](#)
- Less vulnerable development up to 1ha in size: police, ambulance and fire stations, which are NOT required during a flood; buildings used for: shops; financial, professional and other services; restaurants and cafes; hot food takeaways; offices; general industry; storage and distribution; non residential institutions not included in 'more vulnerable'; and assembly and leisure. [click here](#)
- Water compatible development up to 1ha in size with no accommodation [click here](#)
- Water compatible development up to 1ha in size with overnight accommodation [click here](#)

Within Flood Zone 2 the following development types **NOT** covered by standing advice:

- Essential infrastructure
- Highly vulnerable development
- More vulnerable development: landfill/waste facilities or caravans and camping
- Less vulnerable development: land/building used for agriculture or forestry; waste treatment; mineral workings and processing, water treatment plants; or sewage treatment plants.
- All developments greater than 1ha in size

End of comment - [return to Matrix](#)

More Vulnerable development up to 1ha in size (excludes non-residential extension with a footprint of less than 1000sq. metres or a domestic extension – see [Sheet EX2](#)) in Flood Zone 2

The guidance on this sheet concerning Flood Risk Assessment requirements should also be applied to applications for Change Of Use within this category. Note - the Sequential Test does not apply to Change of Use applications. This advice is not applicable to development proposals for landfill/waste facilities & holiday/short-let caravans in this Flood Zone, in these cases consult the Environment Agency.

Sequential Test requirements

The Sequential Test is applied by the Local Planning Authority (LPA) to planning applications within this category. Details of the sequential test are set out in paragraph 101 of the NPPF.

FRA requirements

Planning applications must be accompanied by a Flood Risk Assessment (FRA). We recommend the FRA meets the requirements set out in the table below. All flood management measures will need to be supported by plans and drawings that form part of the FRA. The requirement for a FRA is set out in the NPPF in paragraphs 103 and 104 and footnote 20.

We recommend that the information requested in Table 1.0 is included by the applicant as part of the FRA submission.

Plans may need to be amended and/or the application withdrawn if the detail provided in the FRA does not meet the requirements as set out.

Table 1.0

Flood risk to building / occupants. Information to be provided by the applicant as part of the Flood Risk Assessment	Criteria to be used by LPA in assessing the Flood Risk Assessment
Flood level for the 1 in 100 annual probability river flood (1%); in any year (including an allowance for climate change) in relation to Ordnance Datum	In order to deliver safe development, we strongly advise the following - Ground floor levels to be set at a minimum of whichever is the higher of: · 300mm above the general ground level of the site OR · 600mm above the 1 in 100 annual probability river flood (1%); in any year (including an allowance for climate change). · Basement rooms to have unimpeded access internally to an upper level.
Average ground level of the site in relation to Ordnance Datum ¹	
Finished floor level of lowest habitable room in relation to Ordnance Datum ¹	
1 in 1000 annual probability (0.1%) in any year flood level including an allowance for climate change where this information is available. For single storey buildings or ground floor subdivisions with no access to higher floors, users of the development have	LPA's role: Ensure that the level information has been provided and the standards set out above have been met. In order to deliver safe development, we strongly advise the following – For single storey buildings or ground floor subdivisions with no access to higher floors, users of the development have access to a refuge set above the 1 in 1000 annual

<p>access to a refuge set above the 1 in 1000 annual probability (0.1%) in any year flood level including an allowance for climate change.</p>	<p>probability (0.1%) in any year flood level including an allowance for climate change.</p> <p>LPA's role: Ensure that the provision of a safe refuge for single storey buildings complies with the above information. To achieve these standards floor levels should be raised. Note: For buildings with more than one storey in this category upper floors can be considered safe refuge</p>
<p>Management of surface water Applicant is to indicate that surface water will be managed in accordance with the following standards:</p> <ul style="list-style-type: none"> · Specific requirements for managing surface water set out in an adopted Strategic Flood Risk Assessment and/or Surface Water Management Plan produced by the Local Planning Authority. · Surface water run-off will be controlled to ensure no flooding of property and no increase in surface water run-off from the site to a watercourse or receiving water body compared to the existing pre-application run-off rate in a 1 in 100 year storm event (1% chance in any one year) plus an appropriate allowance for climate change (Flood Risk Practice Guide paragraphs 5.51 and 5.54) · Meets the requirements of Approved Document Part H of Building Regulations 2000. 	<p>LPA's role: Look for assurance from the applicant that surface water will be managed in accordance with the requirements opposite. Seek assurance if not already provided. Cross check the planning application with the Local Plan. Consultation with the local authority Building Control department is recommended. Paragraph 103 of NPPF states that LPAs should in determining planning applications give priority to the use of SuDS.</p> <p>Note: Strategic options for surface water management should be used wherever available.</p> <p>Options such as this would be identified as part of the SFRA for inclusion within in the Local Plan.</p> <p>Building regulation requirements alone are not appropriate for areas with critical drainage problems³.</p>
<p>Flood resilience and resistance Applicant is to indicate that flood resilience/ resistance and emergency escape measures/ procedures have been incorporated where possible. This applies to any part of the building (e.g. basements), that are situated below the 1 in 100 annual probability river flood (1%) level in any year (including an allowance for climate change).</p>	<p>LPA's role: Look for/seek assurance from the applicant that resilience/ resistance and evacuation procedures have been addressed in accordance with the requirements opposite. Cross check the planning application with the Local Plan. Consultation with the local authority Building Control (flood resilience/ resistance) and Emergency Planning (evacuation) department is recommended.</p>
<p>Other sources of flooding (not rivers or the sea) Applicant is to indicate that the SFRA has been referred to and that the recommendations regarding other sources of flooding have been incorporated into the application.</p> <p>If no SFRA is available and flood risk from other sources is present, guidance should be sought from the organisations listed in under the heading 'other sources of flooding'.²</p>	<p>LPA's role: Look for assurance from the applicant that the SFRA has been referred to (where available) and that mitigation for flooding from other sources has been provided where necessary.</p>

Note on flood level information:

Flood Level information should be obtained by the applicant first from the SFRA, or if not available, from the Environment Agency. Where the applicant is unable to obtain the information from either of these sources the LPA should consult the Environment Agency for an individual consultation response, stating this is the case.

¹ Ordnance Datum or the abbreviation 'OD' is the mean level of the sea at Newlyn in Cornwall from which heights above sea level are taken. The contour lines on Ordnance Survey maps measure heights above OD for example, though these are not accurate enough for a flood risk assessment

² Other sources of flooding

- Flooding from surface water and ordinary watercourses - Local Authority drainage department or as part of the SFRA, or from the local Internal Drainage Board (where they exist).
- Flooding from groundwater - Local Authority drainage department or as part of the SFRA
- Flooding from sewers - water (sewerage) company
- Flooding from reservoirs, canals and other artificial sources - Owner of the structure e.g. Water Company or British Waterways.

³ Critical Drainage Areas – there are no currently agreed identified critical drainage areas in Wessex. It would be beneficial to consult with your Technical Services / Drainage Engineers on surface water issues

[End of comment](#)**Less Vulnerable development up to 1ha in size (excludes non-residential extension with a footprint of less than 1000sq. Metres – see [Sheet EX2](#)) in Flood Zone 2****Sequential Test requirements**

The Sequential Test is applied by the Local Planning Authority (LPA) to planning applications within this category. Details of the sequential test are set out in paragraph 101 of the NPPF.

FRA requirements

Planning applications must be accompanied by a Flood Risk Assessment (FRA). We recommend the FRA meets the requirements set out in the table below. All flood management measures will need to be supported by plans and drawings that form part of the FRA. The requirement for a FRA is set out in the NPPF in paragraphs 103 and 104 and footnote 20.

We recommend that the information requested in Table 1.0 is included by the applicant as part of the FRA submission.

Plans may need to be amended and/or the application withdrawn if the detail provided in the FRA does not meet the requirements as set out.

Table 1.0

Flood risk to building / occupants. Information to be provided by the applicant as part of the Flood Risk Assessment	Criteria to be used by LPA in assessing the Flood Risk Assessment
<p>Flood risk to property Applicant is to indicate that the development will avoid flood damage during the 1 in 100 annual probability river flood (1%); in any year (including an allowance for climate change) over the lifetime of the development (default 75 years for commercial).</p>	<p>LPA's role: Look for assurance from the applicant that flood risk to the property will be managed in accordance with the requirements opposite. Seek assurance if not already provided.</p> <p>Note: Where a SFRA has been adopted, this should provide an indication of flood level and extent. The application should acknowledge this in design of flood resistant (raised floor levels, defences and barriers to flooding) or resilient building.</p>
<p>Management of surface water Applicant is to indicate that surface water will be managed in accordance with the following standards:</p> <ul style="list-style-type: none"> · Specific requirements for managing surface water set out in an adopted Strategic Flood Risk Assessment and/or Surface Water Management Plan produced by the Local Planning Authority. · Surface water run-off will be controlled to ensure no flooding of property and no increase in surface water run-off from the site to a watercourse or receiving water body compared to the existing pre-application run-off rate in a 1 in 100 year storm event (1% chance in any one year) plus an appropriate allowance for climate change (Flood Risk Practice Guide paragraphs 5.51 and 5.54) · Meets the requirements of Approved Document Part H of Building Regulations 	<p>LPA's role: Look for assurance from the applicant that surface water will be managed in accordance with the requirements opposite. Seek assurance if not already provided. Cross check the planning application with the Local Plan. Consultation with the local authority Building Control department is recommended. Paragraph 103 of NPPF states that LPAs should in determining planning applications give priority to the use of SuDS.</p> <p>Note: Strategic options for surface water management should be used wherever available. Options such as this would be identified as part of the SFRA for inclusion within in the Local Plan. Building regulation requirements alone are not appropriate for areas with critical drainage problems.</p>

2000.	
<p>Flood resilience and resistance Applicant is to indicate that flood resilience/ resistance and emergency escape measures/ procedures have been incorporated where possible. This applies to any part of the building (e.g. basements), that are situated below the 1 in 100 annual probability river flood (1%) level in any year (including an allowance for climate change).</p> <p>Note: Where a SFRA has been adopted, this should provide an indication of flood level and extent. The application should acknowledge this in design of flood resistant (raised floor levels, defences and barriers to flooding) or resilient building.</p>	<p>LPA's role: Look for assurance from the applicant that resilience/resistance and evacuation procedures have been addressed in accordance with the requirements opposite. Seek assurance if not already provided. Cross check the planning application with the Local Plan. Consultation with the local authority Building Control (flood resilience/ resistance) and Emergency Planning (evacuation) department is recommended.</p>
<p>Other sources of flooding (not rivers or the sea) Applicant is to indicate that the SFRA has been referred to and that the recommendations regarding other sources of flooding have been incorporated into the application.</p> <p>If no SFRA is available and flood risk from other sources is present, guidance should be sought from the organisations listed in under the heading 'other sources of flooding'.²</p>	<p>LPA's role: Look for assurance from the applicant that the SFRA has been referred to (where available) and that mitigation for flooding from other sources has been provided where necessary.</p>

¹ Ordnance Datum or the abbreviation 'OD' is the mean level of the sea at Newlyn in Cornwall from which heights above sea level are taken.
The contour lines on Ordnance Survey maps measure heights above OD for example, though these are not accurate enough for a flood risk assessment

² Other sources of flooding

- Flooding from surface water and ordinary watercourses - Local Authority drainage department or as part of the SFRA, or from the local Internal Drainage Board (where they exist).
- Flooding from groundwater - Local Authority drainage department or as part of the SFRA
- Flooding from sewers - water (sewerage) company
- Flooding from reservoirs, canals and other artificial sources - Owner of the structure e.g. Water Company or British Waterways.

³ Critical Drainage Areas – there are no currently agreed identified critical drainage areas in Wessex. It would be beneficial to consult with your Technical Services / Drainage Engineers on surface water issues

Based on National FRSA015a

[End of comment](#)

Water compatible development (no accommodation) up to 1ha in size (excludes Non-residential extension with a footprint of less than 1000sq. metres or a domestic extension – see [Sheet EX2](#)) in Flood Zone 2

FRA requirements

Planning applications must be accompanied by a Flood Risk Assessment (FRA). We recommend the FRA meets the requirements set out in the table below. All flood management measures will need to be supported by plans and drawings that form part of the FRA. The requirement for a FRA is set out in the NPPF in paragraphs 103 and 104 and footnote 20.

We recommend that the information requested in Table 1.0 is included by the applicant as part of the FRA submission.

Plans may need to be amended and/or the application withdrawn if the detail provided in the FRA does not meet the requirements as set out.

Table 1.0

Flood risk to building / occupants. Information to be provided by the applicant as part of the Flood Risk Assessment	Criteria to be used by LPA in assessing the Flood Risk Assessment
<p>Flood risk to property Applicant is to indicate that the impact is acceptable and that consideration has been given to finished floor levels, surrounding ground levels and the position of essential facilities and services. This should include the aspects below.</p>	<p>LPA's role: Look for assurance from the applicant that they have considered their development in relation to the 1 in 100 annual probability river flood (1%) (including an allowance for climate change). The applicant must indicate clearly that they are satisfied the impact on their development is acceptable to themselves. Seek assurance if not provided.</p>
<p>Management of surface water Applicant is to indicate that surface water will be managed in accordance with the following standards: <ul style="list-style-type: none"> · Specific requirements for managing surface water set out in an adopted Strategic Flood Risk Assessment and/or Surface Water Management Plan produced by the Local Planning Authority. · Surface water run-off will be controlled to ensure no flooding of property and no increase in surface water run-off from the site to a watercourse or receiving water body compared to the existing pre-application run-off rate in a 1 in 100 year storm event (1% chance in any one year) plus an appropriate allowance for climate change (Flood Risk Practice Guide paragraphs 5.51 and 5.54) · Meets the requirements of Approved Document Part H of Building Regulations 2000. </p>	<p>LPA's role: Look for assurance from the applicant that surface water will be managed in accordance with the requirements opposite. Seek assurance if not already provided. Cross check the planning application with the Local Plan. Consultation with the local authority Building Control department is recommended. Paragraph 103 of NPPF states that LPAs should in determining planning applications give priority to the use of SuDS.</p> <p>Note: Strategic options for surface water management should be used wherever available. Options such as this would be identified as part of the SFRA for inclusion within in the Local Plan. Building regulation requirements alone are not appropriate for areas with critical drainage problems³.</p>
<p>Flood resilience and resistance Applicant is to indicate that flood resilience/ resistance and emergency escape measures/ procedures have been incorporated where possible. This applies to any part of the building (e.g. basements), that are situated below the 1 in 100 annual probability river flood (1%) level in any year (including an allowance for climate change).</p>	<p>LPA's role: Look for/ seek assurance from the applicant that resilience/ resistance and evacuation procedures have been addressed in accordance with the requirements opposite. Cross check the planning application with the Local Plan. Consultation with the local authority Building Control (flood resilience/ resistance) and Emergency Planning (evacuation) department is recommended.</p>
<p>Other sources of flooding (not rivers or the sea)</p>	<p>LPA's role:</p>

Applicant is to indicate that the SFRA has been referred to and that the recommendations regarding other sources of flooding have been incorporated into the application.

If no SFRA is available and flood risk from other sources is present, guidance should be sought from the organisations listed under the heading 'other sources of flooding'.²

Look for assurance from the applicant that the SFRA has been referred to (where available) and that mitigation for flooding from other sources has been provided where necessary.

¹ Ordnance Datum or the abbreviation 'OD' is the mean level of the sea at Newlyn in Cornwall from which heights above sea level are taken. The contour lines on Ordnance Survey maps measure heights above OD for example, though these are not accurate enough for a flood risk assessment

² Other sources of flooding

- Flooding from surface water and ordinary watercourses - Local Authority drainage department or as part of the SFRA, or from the local Internal Drainage Board (where they exist).
- Flooding from groundwater - Local Authority drainage department or as part of the SFRA
- Flooding from sewers - water (sewerage) company
- Flooding from reservoirs, canals and other artificial sources - Owner of the structure e.g. Water Company or British Waterways.

³ Critical Drainage Areas – there are no currently agreed identified critical drainage areas in Wessex. It would be beneficial to consult with your Technical Services / Drainage Engineers on surface water issues

Based on National FRSA015a

[End of comment](#)

Essential accommodation for water compatible developments up to 1ha in size (excludes non-residential extension with a footprint of less than 1000sq. metres or a domestic extension – see [Sheet EX2](#)) in Flood Zone 2

FRA requirements

Planning applications must be accompanied by a Flood Risk Assessment (FRA). We recommend the FRA meets the requirements set out in the table below. All flood management measures will need to be supported by plans and drawings that form part of the FRA. The requirement for a FRA is set out in the NPPF in paragraphs 103 and 104 and footnote 20.

We recommend that the information requested in Table 1.0 is included by the applicant as part of the FRA submission.

Plans may need to be amended and/or the application withdrawn if the detail provided in the FRA does not meet the requirements as set out.

Table 1.0

Flood risk to building / occupants. Information to be provided by the applicant as part of the Flood Risk Assessment	Criteria to be used by LPA in assessing the Flood Risk Assessment
Flood level for the 1 in 100 annual probability river flood (1%)-in any year (including an allowance for climate change) in relation to Ordnance Datum	<p>In order to deliver safe development, we strongly advise the following -</p> <p>Ground floor levels to be set at a minimum of whichever is the higher of:</p> <ul style="list-style-type: none"> · 300mm above the general ground level of the site OR · 600mm above the 1 in 100 annual probability river flood (1%) in any year (including an allowance for climate change). · Basement rooms to have unimpeded access internally to an upper level.
Average ground level of the site in relation to Ordnance Datum ¹	
Finished floor level of lowest habitable room in relation to Ordnance Datum ¹	
1 in 1000 annual probability (0.1%) in any year flood level including an allowance for climate change where this information is available.	<p>LPA's role: Ensure that the level information has been provided and the standards set out above have been met.</p> <p>In order to deliver safe development, we strongly advise the following –</p> <p>For single storey buildings or ground floor subdivisions with no access to higher floors, users of the development have access to a refuge set above the 1 in 1000 annual probability (0.1%) in any year flood level including an allowance for climate change.</p> <p>LPA's role: Ensure that the provision of a safe refuge for single storey buildings complies with the above information. To achieve these standards floor levels should be raised. Note: For buildings with more than one storey in this category upper floors can be considered safe refuge</p>
<p>Management of surface water</p> <p>Applicant is to indicate that surface water will be managed in accordance with the following standards:</p> <ul style="list-style-type: none"> · Specific requirements for managing surface water set out in an adopted Strategic Flood Risk Assessment and/or Surface Water Management Plan produced by the Local Planning Authority. · Surface water run-off will be controlled to ensure no flooding of property and no increase in surface water run-off from the site to a watercourse or receiving water 	<p>LPA's role:</p> <p>Look for assurance from the applicant that surface water will be managed in accordance with the requirements opposite. Seek assurance if not already provided. Cross check the planning application with the Local Plan. Consultation with the local authority Building Control department is recommended. Paragraph 103 of NPPF states that LPAs should in determining planning applications give priority to the use of SuDS.</p> <p>Note: Strategic options for surface water management should</p>

<p>body compared to the existing pre-application run-off rate in a 1 in 100 year storm event (1% chance in any one year) plus an appropriate allowance for climate change (Flood Risk Practice Guide paragraphs 5.51 and 5.54)</p> <p>· Meets the requirements of Approved Document Part H of Building Regulations 2000.</p>	<p>be used wherever available. Options such as this would be identified as part of the SFRA for inclusion within in the Local Plan. Building regulation requirements alone are not appropriate for areas with critical drainage problems³.</p>
<p>Flood resilience and resistance</p> <p>Applicant is to indicate that flood resilience/ resistance and emergency escape measures/ procedures have been incorporated where possible. This applies to any part of the building (e.g. basements), that are situated below the 1 in 100 annual probability river flood (1%) level in any year (including an allowance for climate change).</p>	<p>LPA's role:</p> <p>Look for/seek assurance from the applicant that resilience/resistance and evacuation procedures have been addressed in accordance with the requirements opposite. Cross check the planning application with the Local Plan. Consultation with the local authority Building Control (flood resilience/ resistance) and Emergency Planning (evacuation) department is recommended.</p>
<p>Other sources of flooding (not rivers or the sea)</p> <p>Applicant is to indicate that the SFRA has been referred to and that the recommendations regarding other sources of flooding have been incorporated into the application.</p> <p>If no SFRA is available and flood risk from other sources is present, guidance should be sought from the organisations listed in under the heading 'other sources of flooding'.²</p>	<p>LPA's role:</p> <p>Look for assurance from the applicant that the SFRA has been referred to (where available) and that mitigation for flooding from other sources has been provided where necessary.</p>

Note on flood level information:

Flood Level information should be obtained by the applicant first from the SFRA, or if not available, from the Environment Agency. Where the applicant is unable to obtain the information from either of these sources they should agreed the method for establishing an indicative flood level with the Environment Agency.

¹ Ordnance Datum or the abbreviation 'OD' is the mean level of the sea at Newlyn in Cornwall from which heights above sea level are taken. The contour lines on Ordnance Survey maps measure heights above OD for example, though these are not accurate enough for a flood risk assessment

² Other sources of flooding

- Flooding from surface water and ordinary watercourses - Local Authority drainage department or as part of the SFRA, or from the local Internal Drainage Board (where they exist).
- Flooding from groundwater - Local Authority drainage department or as part of the SFRA
- Flooding from sewers - water (sewerage) company
- Flooding from reservoirs, canals and other artificial sources - Owner of the structure e.g. Water Company or British Waterways.

³ Critical Drainage Areas – there are no currently agreed identified critical drainage areas in Wessex. It would be beneficial to consult with your Technical Services / Drainage Engineers on surface water issues

Based on FRSA017a

[End of comment](#)

Development less than 1ha in Flood Zone 1 - surface water drainage Information

Exceptions to this guidance note:

This note does not apply in the following circumstances;

- Where an area with critical drainage problems has been identified by the Environment Agency and notified to the Local Planning Authority (LPA) and formal consultation is required (paragraph (ze) DMPO 2010).
- In areas where the LPA has identified drainage problems through a Strategic Flood Risk Assessment (SFRA) or Surface Water Management Plan (SWMP) and they have indicated that a formal Flood Risk Assessment is required, [FRA guidance note 1](#) should be followed; for more information see:

<http://www.environment-agency.gov.uk/research/planning/93498.aspx>

In all other cases, the following notes set out good practice to achieve sustainable surface water management.

Surface water management good practice principles and standards

For developments (other than changes of use) less than 1 hectare in Flood Zone 1, the main flood risk issue to consider is usually the management of surface water run-off. Drainage from new development must not increase flood risk either on-site or elsewhere. Government policy strongly encourages a sustainable drainage system (SuDS) approach to achieve these objectives. Guidance on how to address specific local surface water flood risk issues may also be available through the SFRA or SWMP produced by the LPA.

For on/near site flooding, the flood risk Practice Guide at paragraph 5.51 states that:

“For events with a return-period in excess of 30 years, surface flooding of open spaces such as landscaped areas or car parks is acceptable for short periods, but the layout and landscaping of the site should aim to route water away from any vulnerable property, and avoid creating hazards to access and egress routes (further guidance in CIRIA publication C635 Designing for exceedence in urban drainage - good practice). No flooding of property should occur as a result of a one in 100 year storm event (including an appropriate allowance for climate change). In principle, a well designed surface water drainage system should ensure that there is little or no residual risk of property flooding occurring during events well in excess of the return-period for which the sewer system itself is designed. This is called designing for event exceedence.”

The CIRIA publication 'Designing for exceedence in urban drainage-good practice' can be accessed via the following link <http://www.ciria.org.uk/suds/publications.htm>

For off-site flooding, the flood risk Practice Guide states at paragraph 5.54:

“For the range of annual flow rate probabilities up to and including the one per cent annual exceedence probability (1 in 100 years) event, including an appropriate allowance for climate change, the developed rate of run-off into a watercourse, or other receiving water body, should be no greater than the existing rate of run-off for the same event. Run-off from previously-developed sites should be compared with existing rates, not greenfield rates for the site before it was developed. Developers are, however, strongly encouraged to reduce runoff rates from previously-developed sites as much as is reasonably practicable. Volumes of run-off should also be reduced wherever possible using infiltration and attenuation techniques. Interim guidance on calculation of site run-off rates can be found at http://www.ciria.org/suds/pdf/preliminary_rainfall_runoff_mgt_for_development.pdf”

Sustainable Drainage Systems (SuDs)

SuDs seek to mimic natural drainage systems and retain water on or near to the site, when rain falls, in contrast to traditional drainage approaches, which tend to pipe water off site as quickly as possible.

SuDs offer significant advantages over conventional piped drainage systems in reducing flood risk by reducing the quantity of surface water run-off from a site and the speed at which it reaches water courses, promoting groundwater recharge, and improving water quality and amenity. The range of SuDs techniques available means that a SuDs approach in some form will be applicable to almost any development.

Government policy set out in paragraph 103 of the NPPF expects LPAs to give priority to the use of SuDs in determining planning applications. Further support for SuDs is set out in chapter 5 of the flood risk Practice Guide.

Approved Document Part H of the Building Regulations 2000 establishes a hierarchy for surface water disposal, which encourages a SuDs approach beginning with infiltration where possible e.g. soakaways or infiltration trenches.

Where SuDs are used, it must be established that these options are feasible, can be adopted and properly maintained and would not lead to any other environmental problems. For example, using soakaways or other infiltration methods on contaminated land carries groundwater pollution risks and may not work in areas with a high water table. Where the intention is to dispose to soakaway, these should be shown to work through an appropriate assessment carried out under BRE Digest 365.

Provision for long-term maintenance should be provided as part of any SuDs scheme submitted to the LPA. Model legal agreements that provide a mechanism for SuDs maintenance can be accessed on the CIRIA web site at <http://www.ciria.org/suds/icop.htm>.

Further information on SuDs can be found in chapter 5 of the flood risk Practice Guide which gives an extensive selection of references. The Interim Code of Practice for Sustainable Drainage Systems provides advice on design, adoption and maintenance issues and a full overview of other technical guidance on SuDs. The Interim Code of Practice is available on CIRIA's web site at: <http://www.ciria.org>

Is the proposal part of a larger development?

A Reserved matters application in Flood Zone 1 might be part of a larger site that already has outline permission. If so, the LPA should ensure that any conditions applied previously in relation to drainage are taken into account in the reserved matters application. This is to prevent a piecemeal approach to drainage taking place.

Disposal to public sewer

Where it is intended that disposal is made to public sewer, the Water Company or its agents should confirm that there is adequate spare capacity bearing in mind all known development proposals in the area.

Other flood risk issues to consider for development in Flood Zone 1

Dry Islands

Some areas within Flood Zone 1 are surrounded by areas at a higher risk of flooding i.e. areas falling within Flood Zones 2 and 3. In certain cases development within such 'dry islands' can present particular hazards to public safety such as people being surrounded by water and needing to be rescued. The distribution of dry islands and the risks posed by them in terms of access/exit vary considerably across the country. If you are in any doubt about how flood risks associated with 'dry islands' may affect your Authority area, please contact your local Environment Agency office by calling 08708 506 506.

Climate Change

As highlighted above, the frequency and intensity of rainfall is predicted to increase as a result of climate change and an allowance for how this will affect the proposal will need to be factored into design. In

addition rising sea levels may put some areas currently within Flood Zone 1 at risk from tidal flooding. These areas should have been identified in your LPA's SFRA.

End of Comment - [return to Matrix](#)