

Preliminary flood risk assessment review

Self-assessment form

January 2017

This self-assessment form is provided to enable each lead local flood authority (LLFA) in England to complete the first review of its preliminary assessment report and identification of flood risk areas (FRAs), as required by the Flood Risk Regulations (2009).

Who should complete this self-assessment?

Every LLFA in England should complete parts A, C and D of the self-assessment form and submit it, with the additional information requested in sections C3 and C4, to the appropriate Environment Agency Partnership and Strategic Overview team **no later than 22 June 2017**.

All LLFAs should **read the guidance document 'Preliminary flood risk assessment review: guidance for lead local flood authorities in England'** before completing the self-assessment form.

Part A - LLFA contact information

Name of LLFA	Hampshire County Council
Name of LLFA officer submitting the assessment	Stephen Blyth
Job title	Policy and Strategy Project Officer
Telephone number	01962 846777
Email address	Stephen.blyth@hants.gov.uk
Name of LLFA officer approving the assessment	Clare Mills
Job title	Flood and Water Manager
Date submitted to Environment Agency	22nd June 2017
Link to PFRA report 2011	Preliminary Flood Risk Assessment (PFRA)

Part B - to be completed by the Environment Agency

Name of Environment Agency officer receiving the completed assessment	
Job title	
Date assessment received from LLFA	
Date assessment agreed with LLFA	

Part C - LLFA self-assessment

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
1. Governance and partnership	1.1 Since publication of the PFRA in 2011, have there been any changes to, or creation of new, risk management authorities (RMAs) with responsibilities in the LLFA area?	No		N/A
	1.2 Are all roles and responsibilities for collecting and recording flood risk data and information clearly defined, including the respective roles and responsibilities of upper and lower tier authorities and other RMAs where relevant?	Yes	Roles and responsibilities for data collecting and recording are clearly defined and understood. RMA roles and responsibilities are outlined in relevant documentation and websites.	
2. Data systems and management	2.1 Do you have an up to date record of relevant sources of flood risk data and information for the LLFA area, including those held by other organisations?	Yes	<p>Relevant 'flooding' GIS layers updated when new national information is made available.</p> <p>HCC maintain an up to date database/GIS record of flooding incidents reported to its Highways teams and Flood and Water Management Team.</p> <p>The public can report instances of flooding or drainage issues via the County Council's website Flood and Water Management or Highways website.</p>	
	2.2 Have sources of 'locally agreed surface water information' been established and maintained	Yes	Partner agreement on 'sources of locally agreed surface water information' established for the production of our	

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	for the LLFA area and agreed with relevant partners?		<p>Preliminary Flood Risk Assessment (PFRA), Surface Water Management Plans (SWMPs) and Local Flood Risk Management Strategy (LFRMS).</p> <p>Sources of information are reviewed when necessary to ensure the most up to date and relevant data is used.</p>	
	2.3 Are systems in place to collect, record and share data and information for the purpose of assessing flood risk in the LLFA area?	Yes	<p>One of the key aims of the Hampshire Strategic Flood and Water Management Partnership Board established by the County Council in 2011 is 'To develop and share information and ensure appropriate systems and procedures are in place to facilitate the effective management of flood risk in Hampshire and to enable the County Council and its partners to undertake their functions in relation to flood risk management.</p> <p>Hampshire County Council complies with the Data Protection Act 1998 and is a registered Data Controller (Reg. No Z7534309), consequently, data collection, records and sharing of data subject to relevant requirements and restrictions.</p>	
	2.4 Are systems in place to assure the quality and security of data and information recorded for the purpose of assessing flood risk in the LLFA area?	Yes	<p>As part of the quality assurance process and procedures all data classed as sensitive or restricted is highlighted and stored on secure local servers. The quality assurance record also includes information on update requirements and any specific requirements on data usage.</p>	

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	2.5 Do you understand the condition and performance of the public, third party and private assets in your register in terms of flood risk?	Yes	At present HCC Flood Risk Register contains only HCC and EA assets. All HCC highway assets have an agreed maintenance schedule. EA also has a maintenance programme published on Gov.UK.	
3. Past floods since Dec 2011 only) Information on past floods since 2011 is required for reporting to the European Commission	3.1 Have any flood events occurred since publication of the original PFRA report in December 2011 that have added to or changed your understanding of significant flood risk in the LLFA area? See the guidance document on which floods to report.	Yes	Do not populate this box. Provide details of relevant floods by updating annex 1 Past floods of your original PFRA report to include relevant floods since 2011. Information from your updated annex 1 will be used for reporting to the European Commission.	Annexe 1 populated with the outcomes of Hampshire County Council Section 19 Investigations for: Romsey; Buckskin, Basingstoke; Wickham; and Fleet.
	3.2 Has your current understanding of significant flood risk in the LLFA area changed as a result of the consequences of floods that have occurred since 2011? How?	Yes	If yes, complete this box and copy your statement to the relevant section of the PFRA addendum template at the end of this document. Since publication of Hampshire's PFRA in 2011 the Authority's understanding of significant flood risk has changed in respect to one specific location in Hampshire. The winter of 2013/14 was reported by the England and Wales Precipitation Series as being the wettest on their records (records began in 1766). This exceptional weather arrived following a wetter than average 2012 and 2013 which in turn were preceded by 4	Since the flood event a Multi-agency approach instigated to assess and develop a potential scheme to address flood risk at Buckskin. Preliminary scheme design in progress. Indicative FCERM funding identified in the FCERM GiA 6 year capital programme (2015/16 - 2020/21). Seeking Local Levy from Thames RFCC. The County Council and others have also indicated that subject to a cost/beneficial scheme that they will contribute towards scheme costs.

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			<p>years of very much dryer than average years between 2008 and 2012 rendering the ground susceptible to groundwater and surface water flooding.</p> <p>Between 7th February and the end of March 2014 flooding occurred at Buckskin a residential area in the north western sector of Basingstoke town. 45 properties were reported as flooding (36 internally and 9 externally). Using the flooding incident maps created it is estimated that up to 88 properties could have been flooded.</p> <p>A Section 19 investigation determined that the flooding was instigated by high groundwater levels which caused a dormant spring to become active and the surface water drainage, formed of soakaways, not to function. This in turn caused runoff to follow the historic river course and accumulate in low lying developed areas.</p> <p>There were 36 properties that reported foul flooding at their property indicating that the foul sewer network was unable to cope with the inundation from the groundwater and surface water flooding.</p> <p>Groundwater modelling has identified 181 properties at risk of groundwater flooding once in 46 years.</p> <p>Although Hampshire's LFRMS assessed the overall flood risk from local sources at Buckskin as 'High' (ranked 20th), it was not</p>	

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			in the top 50 sites for groundwater flood risk.	
4. Future flood information Information on future floods is required for reporting to the European Commission	4.1 Have you created or received new information on potential future floods that has added to or changed your understanding of significant flood risk in the LLFA area since publication of your original PFRA report in 2011?	Yes	Do not populate this box. Provide details by updating annex 2 Future floods of your original preliminary assessment report to include relevant new information since 2011. Information from your updated annex 2 will be used for reporting to the European Commission.	Annexe 2 updated using the Environment Agency's Risk of Flooding from Surface Water flood map.
	4.2 Have you created or received new information to improve the understanding of the future impact of climate change on flood risk in the LLFA area?	Yes	In February 2016 Government published revised climate change allowances. This advice updated previous climate change allowances to support NPPF. https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances In addition the Environment Agency has carried out an analysis at the national level to compare the number of people at risk from surface water flooding from a rainfall event with a 1% chance of occurring in any one year to the number at risk from an event with a 0.1% chance of occurring in any year.	The revised allowances for the South East River Basin District are used when undertaking our roles and responsibilities under the F&WMA along with our role as a statutory consultee in respect to major developments. The revised allowances and 'heat map' will be used to help inform the review of our Local Flood Risk Management Strategy that is currently in progress.
	4.3 Have you created or received new information on long term developments to improve your understanding of flood risk in the	Yes	The National Planning Policy Framework (March 2012) sets out the Government's planning policies for England and how these are expected to be applied.	

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	LLFA area?		<p>In respect to flooding the aim is to prevent new development from increasing flood risk i.e. inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere (refer to Section 10: Meeting the challenge of climate change, flooding and Coastal change).</p> <p>As a statutory consultee for major developments and consenting works to ordinary watercourses the County Council as a Lead Local Flood Authority is working with developers to reduce flood risk through the planning process.</p> <p>The County Council also recommends that district and borough councils treat the LFRMS as an important 'material consideration' in the planning process. The Strategy should be referred to in Local Plans and decisions and should help influence the location, design and layout of new developments. The measures identified in the LFRMS Action Plan should be considered when local planning authorities prepare infrastructure assessments and Community Infrastructure Levy (CIL) Charging Documents.</p>	
	4.4 Has your understanding of flood risk in the LLFA area	Yes	Complete this box and copy your statement to the relevant section of the PFRA	The review of Hampshire's LFRMS will be informed by the allowances and analysis.

customer service line
03708 506 506

incident hotline
0800 80 70 60

floodline
0345 988 1188

www.gov.uk/environment-agency

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	<p>changed since 2011 as a result of new information on the potential consequences of future floods, the impact of climate change or long term developments? How?</p>		<p>addendum template at the end of this document.</p> <p>Hampshire's Local Flood Risk Management Strategy adopted in July 2013, provides a detailed assessment of local flood risk in the county. In 2016 the County Council commenced a review of its LFRMS to coincide with the PFRA review process. The strategy will adopt a catchment-based approach to flood risk, around catchment areas of natural drainage basins irrespective of administrative boundaries and be informed by the latest information available.</p> <p>This will include revised climate change allowances published in 2016 to support NPPF.</p> <p>https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances</p> <p>Hampshire has a known history of groundwater flooding. During winter 2000/2001, over 100 towns and villages across the county suffered significant flooding with over 400 properties flooded with significant disruption and damage to infrastructure. Rainfall during 2012 reached a record high for England. From November 2012 onward groundwater levels in Hampshire rose leading to the issue of groundwater flood alerts by the Environment Agency. The worst affected areas appear to have been in the eastern part of the County in the Wallington and Lavant catchments.</p>	

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			<p>More prevalent were problems related to the ingress of groundwater into the mains sewage systems. These problems were more widespread, occurring to the East of the county e.g. Hambledon and to the North e.g. St. Mary Bourne. The Hampshire Groundwater Management Plan Final Draft October 2013 provides an assessment of the risk from groundwater flooding.</p> <p>The Environment Agency has also carried out an analysis at the national level to compare the number of people at risk from surface water flooding from a rainfall event with a 1% chance of occurring in any one year to the number at risk from an event with a 0.1% chance of occurring in any year. The numbers of people at risk are counted per 1km grid square. The resulting 'heat map' and analysis (attached to the addendum) shows how the absolute number of people at risk increases between these two rainfall events for each 1km grid square.</p>	
<p>5. Identification of Flood Risk Areas for 2nd planning cycle</p> <p>Identified FRAs are required for reporting to the</p>	<p>5.1 Are the indicative FRAs an appropriate representation of significant surface water flood risk in your LLFA area?</p>	<p>Yes</p>	<p>One IFRA referred to as 'Aldershot' is proposed in Hampshire. However, the IFRA is centred on Farnborough (Rushmoor Borough Council), together with Hawley (Hart District Council) to the north. The IFRA also extends eastwards across the Blackwater River into Frimley, Sandhurst and Camberley (Surrey County Council).</p> <p>A Surface Water Management Plan for</p>	

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European Commission			<p>Rushmoor was published in 2012. Two schemes within the IFRA are in the current FCERM GiA 6 year Capital investment Programme at Sycamore Road and Rectory Road, Farnborough.</p> <p>The Loddon Catchment has been identified as a priority location (subject to Executive Member ratification). This is the outcome of a prioritisation exercise using a GIS based Catchment Prioritisation tool to identify at a broad county-level scale, locations in Hampshire which should be considered for further assessment of flood risk.</p>	
	5.2 Do the consequences of flooding from other local sources , ie groundwater or ordinary watercourses, or from combined multiple sources , indicate any other areas of significant risk?	No	Based on our current understanding of combined sources of flood risk the only other potential area in Hampshire is at Basingstoke (Buckskin). However, here the County Council in partnership with the EA, local authority and community is developing a flood mitigation scheme. Subject to a cost beneficial scheme and the availability of funding it is anticipated that this will be commenced before 2020/21 (indicative GiA funding in current FCERM GiA 6 year capital programme). Therefore, it is not considered appropriate or necessary to consider Buckskin and the surrounding area as an additional new FRA.	
	5.3 Has your PFRA review identified any other information which indicates other areas of	No		N/A

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	significant risk?			
	5.4 On the basis of the national evidence provided and your review, do you agree with the indicative FRAs for your area?	Yes	<p>Do not populate this box.</p> <p>List your FRAs in annex 3 of your original preliminary assessment report.</p> <p>If you do not agree with an indicative FRA, we advise that you engage early with the relevant Environment Agency PSO team to raise questions or concerns ahead of submitting this form (see guidance document).</p>	Hampshire County Council accepts the principle of an IFRA in the locality proposed. However, as further work is undertaken it may prove necessary to seek to refine the FRA boundary in order to have regard to the natural watershed and better reflect the hydrology of the area.
	5.5 On the basis of local evidence and your review, are you amending or identifying any additional FRAs for your area?	No	<p>Do not populate this box.</p> <p>List additional FRAs in annex 3 of your original preliminary assessment report.</p> <p>If you are amending, or proposing additional, FRAs, this should first be discussed with the relevant Environment Agency PSO team ahead of submitting this form.</p>	N/A

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<p>6. Updating the original preliminary assessment report using the template addendum (see also Part D)</p> <p>Updates are required for reporting to the European Commission</p>	<p>6.1 Have you completed an addendum to update your preliminary assessment report?</p>	<p>Yes</p>	<p>Do not populate this box.</p> <p>Complete the addendum template provided below</p>	<p>N/A</p>

Part D Template for addendum to update the original Preliminary Flood Risk Assessment report

ADDENDUM

Update to the preliminary flood risk assessment report for Hampshire County Council

The preliminary flood risk assessment (PFRA) and flood risk areas (FRAs) for Hampshire County Council were reviewed during 2017, using all relevant current flood risk data and information, and agreed with the Environment Agency on XX December 2017.

Changes to the assessment of risk since the preliminary assessment report was published in 2011 are described in the statements in this addendum.

The annexes to the preliminary assessment report have been reviewed and updated to show relevant new information since 2011.

Past flood risk

Since publication of Hampshire's PFRA in 2011 the Authority's understanding of significant flood risk has changed in respect to one specific location in Hampshire.

The winter of 2013/14 was reported by the England and Wales Precipitation Series as being the wettest on their records (records began in 1766). This exceptional weather arrived following a wetter than average 2012 and 2013 which in turn were preceded by 4 years of very much dryer than average years between 2008 and 2012 rendering the ground susceptible to groundwater and surface water flooding.

Between 7th February and the end of March 2014 flooding occurred at Buckskin a residential area in the north western sector of Basingstoke town. 45 properties were reported as flooding (36 internally and 9 externally). Using the flooding incident maps created it is estimated that up to 88 properties could have been flooded.

A Section 19 investigation determined that the flooding was instigated by high groundwater levels which caused a dormant spring to become active and the surface water drainage, formed of soakaways, not to function. This in turn caused runoff to follow the historic river course and accumulate in low lying developed areas.

There were 36 properties that reported foul flooding at their property indicating that the foul sewer network was unable to cope with the inundation from the groundwater and surface water flooding.

Groundwater modelling has identified 181 properties at risk of groundwater flooding once in 46 years.

Although Hampshire's LFRMS assessed the overall flood risk from local sources at Buckskin as 'High' (ranked 20th), it was not in the top 50 sites for groundwater flood risk

Since the flood event a Multi-agency approach instigated to assess and develop a potential scheme to address flood risk at Buckskin. Preliminary scheme design in progress. Indicative FCERM funding identified in the FCERM GiA 6 year capital programme (2015/16 - 2020/21). Seeking Local Levy from Thames RFCC. The County Council and others have also indicated that subject to a cost/beneficial scheme that they will contribute towards scheme costs.

Future flood risk

Include here the statement of risk from your PFRA review self-assessment form

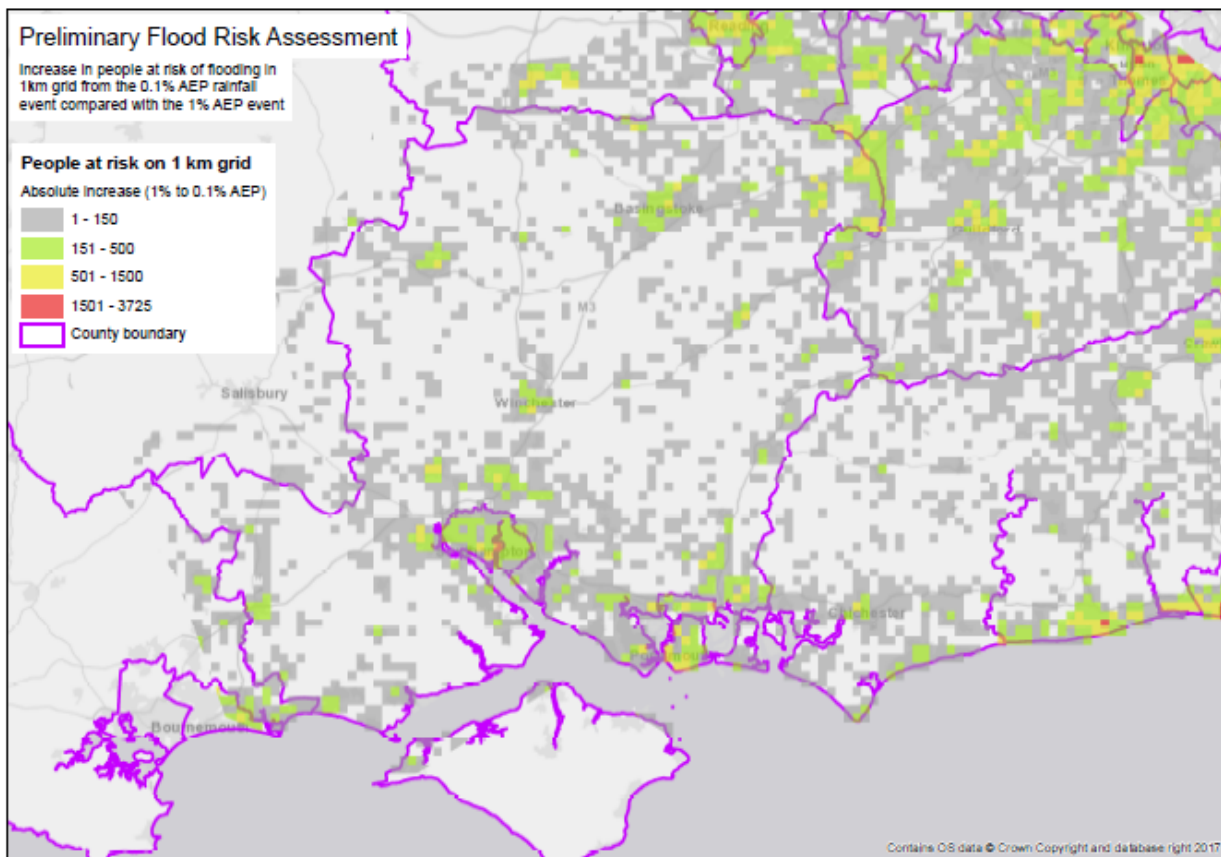
Hampshire's Local Flood Risk Management Strategy adopted in July 2013, provides a detailed assessment of local flood risk in the county. In 2016 the County Council commenced a review of its LFRMS to coincide with the PFRA review process. The strategy will adopt a catchment-based approach to flood risk, around catchment areas of natural drainage basins irrespective of administrative boundaries and be informed by the latest information available.

This will include revised climate change allowances published in 2016 to support NPPF.

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

Hampshire has a known history of groundwater flooding. During winter 2000/2001, over 100 towns and villages across the county suffered significant flooding with over 400 properties flooded with significant disruption and damage to infrastructure. Rainfall during 2012 reached a record high for England. From November 2012 onward groundwater levels in Hampshire rose leading to the issue of groundwater flood alerts by the Environment Agency. The worst affected areas appear to have been in the eastern part of the County in the Wallington and Lavant catchments. More prevalent were problems related to the ingress of groundwater into the mains sewage systems. These problems were more widespread, occurring to the East of the county e.g. Hambledon and to the North e.g. St. Mary Bourne. The Hampshire Groundwater Management Plan Final Draft October 2013 provides an assessment of the risk from groundwater flooding.

The Environment Agency has also carried out an analysis at the national level to compare the number of people at risk from surface water flooding from a rainfall event with a 1% chance of occurring in any one year to the number at risk from an event with a 0.1% chance of occurring in any year. The numbers of people at risk are counted per 1km grid square. The resulting 'heat map' (see below) shows how the absolute number of people at risk increases between these two rainfall events for each 1km grid square.



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Absolute percentage increase in the number of people at risk of flooding for 0.1 AEP (1000 year) rainfall event compared with 1% (100 year) event

Rank	LLFA Name	Residential props_100	Residential props_1000	Non residential props_100	Non residential props_1000	Key Services (incl elec)_100	Key Services (incl elec)_1000	Num People_100	Num People_1000	Absolute increase between 1 in 100 and 1 in 1000	Percentage increase in people at risk
105	Hampshire County	13,055	51,348	1,532	4,982	104	413	30,549	120,154	89,605	293

Note: Portsmouth City Council is ranked 1st and Southampton is 37th compared to Hampshire's 105th ranking out of 151 authorities overall.

Flood risk areas (FRAs)

The following FRAs have been identified for the purposes of the Flood Risk Regulations (2009) 2nd planning cycle (if no FRAs are identified, please state this here).

An Indicative Flood Risk Area (iFRA) referred to as 'Aldershot' is proposed in Hampshire. However, the iFRA is centred on Farnborough (Rushmoor Borough Council), together with Hawley (Hart District Council) to the north. The iFRA also extends eastwards across the Blackwater River into Frimley, Sandhurst and Camberley (Surrey County Council).

Other changes

Include any other updates which you consider important in relation to the assessment of flood risk in your area eg a change in the governance or structure of flood risk management in the LLFA area from those described in the original report.

N/A