

Sustainable Communities Scrutiny Committee

Agenda

Date: Thursday, 7th July, 2011
Time: 11.00 am
Venue: Committee Suite 1,2 & 3, Westfields, Middlewich Road,
Sandbach CW11 1HZ

The agenda is divided into 2 parts. Part 1 is taken in the presence of the public and press. Part 2 items will be considered in the absence of the public and press for the reasons indicated on the agenda and at the foot of each report.

PART 1 – MATTERS TO BE CONSIDERED WITH THE PUBLIC AND PRESS PRESENT

1. **Apologies for Absence**

2. **Minutes of Previous Meeting** (Pages 1 - 4)

To approve the minutes of the meeting held on 2 June 2011.

3. **Declarations of Interest/Whipping Declarations**

To provide an opportunity for Members and Officers to declare any personal and /or prejudicial interests in any item on the agenda.

4. **Public Speaking Time/Open**

A total period of 15 minutes is allocated for members of the public to make a statement(s) on any matter that falls within the remit of the Committee.

Individual members of the public may speak for up to 5 minutes, but the Chairman will decide how the period of time allocated for public speaking will be apportioned, where there are a number of speakers

5. **Preliminary Flood Risk Assessment** (Pages 5 - 110)

To consider the report of the Lead Emergency Planning Officer.

For any apologies or requests for further information, or for a member of the public to make a statement:

Contact: Denise French
Tel: 01270 686464
E-Mail: denise.french@cheshireeast.gov.uk

6. **Funding for the Community and Voluntary Sector in Cheshire East** (Pages 111 - 114)

To consider the report of the Performance and Partnerships Manager.

7. **Review of LAPs and Community Support Arrangements**

To receive a presentation from the Performance and Partnerships Manager.

8. **CCTV Relocation** (Pages 115 - 118)

To consider the report of the Community Safety Manager.

9. **Work Programme Update** (Pages 119 - 122)

To give consideration to the work programme.

10. **Forward Plan - extracts** (Pages 123 - 126)

To give consideration to the extracts of the forward plan which fall within the remit of the Committee.

CHESHIRE EAST COUNCIL

Minutes of a meeting of the **Sustainable Communities Scrutiny Committee**
held on Thursday, 2nd June, 2011 at Committee Suite 1,2 & 3, Westfields,
Middlewich Road, Sandbach CW11 1HZ

PRESENT

Councillor H Murray (Chairman)
Councillor M Grant (Vice-Chairman)

Councillors A Barratt, L Brown, J Jackson, W Livesley, M Parsons, G Morris,
P Raynes and J Wray

Apologies

None noted.

In attendance

E Lam

Officers

Juliet Blackburn	Performance and Partnerships Manager
Tony Potts	Community Safety Manager
Mark Grimshaw	Scrutiny Officer

100 DECLARATIONS OF INTEREST/WHIPPING DECLARATIONS

None noted.

101 PUBLIC SPEAKING TIME/OPEN

No members of the public wished to address the Committee.

102 MINUTES OF PREVIOUS MEETING

RESOLVED – That the minutes of the meeting held on 7 April 2011 be approved as a correct record and signed by the Chairman.

103 SCRUTINY TOOLKIT

Recognising that there were a number of new Members of the Committee, the Chairman went through a number of issues relating to the general operation and function of Overview & Scrutiny Committees.

Firstly, it was made clear that Overview & Scrutiny Committees were non-political entities, led by Members which encouraged open and informed debate with a focus on performance.

The Chairman drew attention to Task and Finish groups, highlighting how they were vital in producing detailed evidence based work into various policy areas that were relevant to the remit of the Committee. It was emphasised that these should ideally be short, sharp pieces of work involving a small number of Members who could invest the requisite amount of time into them. It was noted that the membership of Task and Finish Groups would not have to come solely from the Committee as there would be opportunity to enlist assistance from other non-executive Members and external bodies with relevant expertise.

With regards to which Portfolio Holders the Committee held to account, it was explained that whereas in the past the Committee had scrutinised up to 4 Portfolios, under the proposed terms of reference the Committee would concentrate on the remit of Councillors Rachel Bailey (Safer and Stronger Communities), Councillor Jamie Macrae (Prosperity) and Councillor David Brown (Performance and Capacity).

The Chairman then asked the Members of the Committee to introduce themselves and to express an area of interest for the Committee. The issues that Members identified were as follows:

- Community Policing, including ASB, Community Payback and presence in rural areas.
- Supporting the voluntary sector
- Devolved issues and reducing double taxation
- Road safety
- Effective partnership working
- Analysing perception of crime and the reality of crime
- Domestic violence
- Caring for the neighbourhood – helping people to help themselves.
- LAPs

Mark Grimshaw, Scrutiny Officer, building on the points made by the Chairman offered some additional information regarding the scrutiny process in Cheshire East. The point was reinforced that scrutiny in Cheshire East was a Member led process that focused on performance rather than ideology. It was also asserted that it was good practice to keep the work programme focused and dealing with items that offered a scrutiny value to the authority.

As a final point, it was suggested that it would be useful for the Committee to receive the finalised terms of reference for the Sustainable Communities Scrutiny Committee when it became available.

RESOLVED –

- a) That the Scrutiny toolkit presentation be received.
- b) That the finalised terms of reference for the Committee be circulated to Members when available.

104 **WORK PROGRAMME**

Members gave consideration to the work programme. Emily Lam suggested that it would be germane for the Committee to receive a paper outlining the possible

ramifications of the recent report following the Pilkington Case. The Chairman agreed that this was an important item and that it should be put on the work programme for future consideration. However, it was also suggested that the Committee should wait until the Police Authority had responded to the report before engaging with it in order to gain a better view of its possible future implications.

It was also suggested that it would be useful for the Committee to receive a briefing on the LAPs, particularly regarding what work they carried out with concern to facilitating community support.

RESOLVED – That the work programme be noted and amended to include items on the implications of the Pilkington Case report and a briefing on LAPs including their work on facilitating community support.

The meeting commenced at 10.30 am and concluded at 12.30 pm

Councillor H Murray (Chairman)

This page is intentionally left blank

CHESHIRE EAST COUNCIL

REPORT TO: SUSTAINABLE COMMUNITIES SCRUTINY COMMITTEE

Date of Meeting:	7 July 2011
Report of:	Lead Emergency Planning Officer for Cheshire East Council
Subject/Title:	Cheshire East Council Preliminary Flood Risk Assessment
Portfolio Holder:	Councillor Rachel Bailey

1.0 Report Summary

- 1.1 As part of its new duties as a Lead Local Flood authority (LLFA) under the Flood and Water Management Act 2010, the Council must prepare a Preliminary Flood Risk Assessment (PFRA). This is a high level screening exercise in order to determine whether there is significant local flood risk within the LLFA boundary based on historic and potential future flood risk data. This screening and any identified risk is contained within a Preliminary Flood Risk Assessment Report (PFRA) which requires approval from the LLFA and review by the Environment Agency within a specified timeframe. The Environment Agency requested the PFRA document to be submitted to them by the 22 June 2011 and this has been undertaken. This report seeks scrutiny committee endorsement of the attached Preliminary Flood Risk Assessment report. The Portfolio Holder, Councillor Rachel Bailey, has already approved the PFRA report prior to it being submitted to the Environment Agency.

2.0 Decisions Requested

- 2.1 It is recommended that the Preliminary Flood Risk Assessment, as attached to this report, be endorsed as the PFRA for the Cheshire East Council LLFA as submitted to the Environment Agency for formal review.

3.0 Reasons for Recommendation

- 3.1 Defra and the Environment Agency has requested scrutiny committee endorsement of the PFRA document.

4.0 Wards Affected

- 4.1 Potentially all Wards may be affected.

5.0 Local Ward Members

5.1 All Ward Members

**6.0 Policy Implications including - Climate change
- Health**

- 6.1 Climate change could well potentially lead to greater flooding problems in the future. Climate change projection work will play an important part in helping the Council to understand the likelihood of future flooding, particularly in relation to development plans. Work in relation to Flood and Water Management and the Preliminary Flood Risk Assessment should prove useful tools to mitigate and lessen this risk and also reduce any associated potential health problems to the community at large.

7.0 Financial Implications (Authorised by the Borough Treasurer)

- 7.1 The Council as LLFA has been given £124,700 by DEFRA this financial year for the purpose of delivering the new Act and £176,500 for future years.

8.0 Legal Implications (Authorised by the Borough Solicitor)

- 8.1 It is a statutory requirement for the Council as the Lead Local Flood Authority to produce a PFRA and to submit this to the Environment Agency by the 22 June 2011.

9.0 Risk Management

- 9.1 Flooding and its associated issues is one of the major risks to the Cheshire East community. Work in relation to Flood and Water Management and the attached Preliminary Flood Risk Assessment will assist in helping to mitigate and lessen this risk.
- 10.1 The EU Flood Risk Regulations 2009 and the Flood and Water Management Act 2010 set out a range of new duties and responsibilities for local authorities in planning for, and delivering local flood risk management. All unitary authorities, for the purposes of flood risk management, are designated as Lead Local Flood Authorities (LLFA).
- 10.2 The four Cheshire local authorities together with St Helen's Council are engaged in a process of seeking to identify and establish common and collaborative working wherever possible. This is being achieved by way of the these authorities match funding a £30,000 grant from the Environment Agency in order to employ Jacobs Engineering for the purpose of delivering a PFRA for each authority together with adopting common standards to deliver the requirements under the Flood and Water Management Act 2010 and the EU Flood Risk Regulations 2009 This will facilitate efficient and effective mechanisms to plan for, and deliver flood risk management recognising the need to build capacity to deliver new duties and also that many flood management issues are

best addressed at a more strategic scale. The PFRA is a high level screening exercise to determine whether there is a local flood risk within the LLFA area based on historic and potential future flood risk. Local flood risk includes that arising from surface water, groundwater, ordinary watercourses and canals.

- 10.3 The PFRA is based on the most up to date information available to the LLFA. A National Flood Map has recently been produced by the Environment Agency which identified ten national Indicative Flood Risk Areas where risk meets a specific, nationally established threshold of significance. These Indicative Flood Risk Areas occur where clusters of population greater than 30,000 people are located within an area of flood risk that is above prescribed national thresholds. It should be noted however that other locally significant flood risk in the Borough, remains a fundamentally important component of current and future flood risk management planning. This is set out in Cheshire East Council's Strategic Flood Risk Assessment (as commissioned by the former legacy authorities) and may be further explored and refined through a Surface Water Management Plan (SWMP) in due course which will identify, with greater clarity, the extent of properties and critical infrastructure susceptible to risk from surface water flooding.
- 10.4 The PFRA is required to review the national Indicative Flood Risk Areas by using the most up to date locally available evidence. It should also set out the need for any amendments to the National Indicative Flood Risk Areas Map with supporting evidence and explanation. Whether seeking to amend National Indicative Maps or not, the Preliminary Flood Risk Assessment report sets out how the assessment has been undertaken and provides a robust evidence base to help support preparation of future Local Flood Risk Strategies. In the case of Cheshire East the Preliminary Flood Risk Assessment report is based on data held by the Environment Agency and United Utilities and from within the Council's Strategic Flood Risk Assessment
- 10.5 Having identified no Indicative Flood Risk Areas (affecting 30,000 people or more) but some locally Significant Flood Risk Areas, within the Cheshire East Borough, the next required stage of the PFRA process is to develop a Local Flood Management Strategy to plan how these risks will be managed.
- 10.6 The Committee will be informed of further progress with regard to flood risk management activities when key milestones are reached and where specific approvals require endorsement.

11.0 Overview of Year One and Term One Issues

- 11.1 Assistance from Jacobs Engineering together with consultation both locally and within Cheshire Local Authorities / St Helen's Council / Environment Agency structures, as well as with United Utilities has been

undertaken for the purpose of the preparation of the Cheshire East LLFA
PFRA report

12 Background Papers

The following background papers relating to this report can be inspected by
contacting the report writer:

Name: Martin Grime;
Designation: Lead Emergency Planning Officer for Cheshire East Council
Joint Cheshire Emergency Planning Team
Tel No: 01244 973866 / 07774677471
Email: martin.grime@cheshireeast.gov.uk

Preliminary Flood Risk Assessment Report (attached).
Flood and Water Management Act 2010
Flood Risk Regulations 2009



Preliminary Flood Risk Assessment

Preliminary Assessment Report

June 2011

Ref: B1666300/CE/PFRA/F01

Document control sheet

BPP 04 F8 version 7 Apr 2011

Client: Cheshire East Council
Project: PFRA
Document title: Preliminary Assessment Report
Ref. No: B1666300/CE/PFRA/F01

Project No: B1666300

Originated by		Checked by		Reviewed by		Approved by	
ORIGINAL Draft	NAME	NAME		NAME		NAME	
	<i>Alan Dav's</i>		<i>ED B</i>		<i>D. DL</i>		<i>D. DL</i>
DATE	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS
May 2011	ACD	EDR	DRD	DRD			
Document status		Draft for Client Comment					

REVISION Final	NAME Ed Rollason		NAME A Davis		NAME A Davis		NAME A Davis	
	<i>ED B</i>		<i>Alan Dav's</i>		<i>Alan Dav's</i>		<i>Alan Dav's</i>	
DATE	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS	
June 2011	EDR	ACD	ACD	ACD	ACD	ACD	ACD	
Document status								

REVISION	NAME		NAME		NAME		NAME	
DATE	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS	
Document status								

REVISION	NAME		NAME		NAME		NAME	
DATE	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS	INITIALS	
Document status								

Jacobs Engineering U.K. Limited

This document has been prepared by a division, subsidiary or affiliate of Jacobs Engineering U.K. Limited ("Jacobs") in its professional capacity as consultants in accordance with the terms and conditions of Jacobs' contract with the commissioning party (the "Client"). Regard should be had to those terms and conditions when considering and/or placing any reliance on this document. No part of this document may be copied or reproduced by any means without prior written permission from Jacobs. If you have received this document in error, please destroy all copies in your possession or control and notify Jacobs.

Any advice, opinions, or recommendations within this document (a) should be read and relied upon only in the context of the document as a whole; (b) do not, in any way, purport to include any manner of legal advice or opinion; (c) are based upon the information made available to Jacobs at the date of this document and on current UK standards, codes, technology and construction practices as at the date of this document. It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Jacobs has been made. No liability is accepted by Jacobs for any use of this document, other than for the purposes for which it was originally prepared and provided. Following final delivery of this document to the Client, Jacobs will have no further obligations or duty to advise the Client on any matters, including development affecting the information or advice provided in this document.

This document has been prepared for the exclusive use of the Client and unless otherwise agreed in writing by Jacobs, no other party may use, make use of or rely on the contents of this document. Should the Client wish to release this document to a third party, Jacobs may, at its discretion, agree to such release provided that (a) Jacobs' written agreement is obtained prior to such release; and (b) by release of the document to the third party, that third party does not acquire any rights, contractual or otherwise, whatsoever against Jacobs and Jacobs, accordingly, assume no duties, liabilities or obligations to that third party; and (c) Jacobs accepts no responsibility for any loss or damage incurred by the Client or for any conflict of Jacobs' interests arising out of the Client's release of this document to the third party.

Executive Summary

This report has been prepared to assist Cheshire East Council (CEC) in meeting their duties to manage local flood risk and deliver the requirements of the Flood Risk Regulations (2009) and the Floods and Water Management Act (2010). CEC is defined as a Lead Local Flood Authority (LLFA) under the Regulations, and has a number of Duties under the recent legislation.

The Preliminary Flood Risk Assessment (PFRA), comprising this document and the supporting spreadsheet, represents the first stage of the requirements of the Regulations.

The PFRA process is aimed at providing a high level overview of flood risk from local flood sources, including surface water, groundwater, Ordinary Watercourses and canals. As a LLFA, CEC must submit their PFRA to the Environment Agency for review by 22nd June 2011. The methodology for producing this PFRA has been based on the Environment Agency's Final PFRA Guidance and Defra's Guidance on selecting Flood Risk Areas, both published in December 2010.

The Environment Agency has used a national methodology, which has been set out by Defra, to identify indicative Flood Risk Areas across England. Of the ten indicative Flood Risk Areas that have been identified nationally, none are located within CEC's administrative area. The Flood Risk Regulations therefore require CEC to:

- Collate and review existing data relating to historic and predicted future flood risk;
- Confirm areas across East Cheshire where local flood risk exceeds a locally determined threshold (in this case, where more than 80 houses are affected, 5 non-residential properties, or one piece of Critical Infrastructure).

Furthermore, the Environment Agency require CEC to agree and confirm a surface water mapping dataset that best represents the risks from surface water flooding within CEC's administrative area.

In order to develop a clear overall understanding of the flood risk across East Cheshire, flood risk data and records of historic flooding were collected from several different local and national sources. This included the Environment Agency, water and sewerage companies, emergency services and other risk management authorities.

Information relating to a number of historic flood events, caused by flooding from local sources, was collected and analysed. However, comprehensive details on flood extents and consequences of these events were largely unavailable.

From the information received, two events were identified that had 'significant harmful consequences'. These have therefore been included in Annex 1 of the Preliminary Assessment Spreadsheet (see Annex 1 of this document). Other data collected is recorded in the mapping provided as part of this PFRA document. This data indicates that historic flood risk within the area is mainly from rivers, surface water runoff and sewers. There appears to be little risk from groundwater flooding.

An assessment of future flood risk (flood risk that it is predicted may occur in the future) has found that there is a risk of flooding from local sources across Cheshire East in some areas, particularly from fluvial and surface water sources. Based on national surface water modelling undertaken by the Environment Agency (for a flood event with a 1 in 200 chance of flooding in any given year), it has been assessed that there are 36,400 properties, including 27,200 residential properties, at risk from surface water flooding in the future.

To progress CEC's approach to flood risk management, ongoing work post-PRFA submission will be designed to meet its objectives under the recent legislation, and include:

- Continuing to develop links with adjacent LLFAs and other bodies responsible for flood risk management;
- Using data collected to produce a manageable GIS database, controlled centrally, for use on future development control queries, investigation, planning etc;
- Assessments to identify the flood risk management prioritisations over the entire CEC area;
- Development of a Local Flood Risk Strategy;
- Development of an Asset Register that will be linked into CEC's existing Highways database;
- Setting up arrangements to record and (where appropriate) investigate future floods.
- Adopting and approving Sustainable Urban Drainage Systems (SUDS)

Contents

Executive Summary	i
Glossary	v
1 Introduction	1
1.1 Preliminary Flood Risk Assessment	1
1.2 Aims and Objectives	2
1.3 Study Area	3
2 Lead Local Flood Authority Responsibilities	5
2.1 Introduction	5
3 Methodology and Data Review	7
3.1 Introduction	7
3.2 Methodology	7
4 Past Flood Risk	11
4.1 Introduction	11
4.2 Surface Water Flooding	11
4.3 Fluvial Flooding	12
4.4 Sewer Flooding	13
4.5 Groundwater Flooding	13
4.6 Canal Flooding	14
4.7 Interaction with Main Rivers and the Sea	14
5 Future flood risk	15
5.1 Overview of Future Flood Risk	15
5.2 Surface Water Flooding	15
5.3 Fluvial Flooding	16
5.4 Canal Flooding	17
5.5 Groundwater Flooding	17
5.6 Sewer Flooding	17
5.7 Climate Change and Long Term Developments	18
6 Review of Indicative Flood Risk Areas	21
6.1 Overview	21
7 Next Steps	23
7.1 Future Data Management Arrangements	23
7.2 Scrutiny and Review Procedures	23

Appendices

- Appendix A Figures
- Appendix B Historic Flood Chronology

Annexes

- Annex 1 Past Floods Spreadsheet
- Annex 2 Future Floods Spreadsheet
- Annex 3 Flood Risk Areas
- Annex 4 PFRA Checklist

Glossary

AStSWF:	Areas Susceptible to Surface Water Flooding;
CEC:	Cheshire East Council;
CFMP:	Catchment Flood Management Plan;
Defra:	Department for Environment, Food and Rural Affairs;
DG5:	OFWAT Directive Guidelines No. 5 (for Water Companies) for annual level of service indicators for properties at risk of sewer flooding;
EA:	Environment Agency;
FMfSW:	Flood Map for Surface Water;
FWMA:	Flood and Water Management Act;
GIS:	Geographical Information Systems;
IPCC:	Intergovernmental Panel on Climate Change;
LGF:	Local Government Forum;
LLFA:	Lead Local Flood Authority;
NRD:	National Receptor Dataset;
OEFRPG:	Operational Emergency Flood Response Plan Groups;
OFWAT:	Water Services Regulation Authority;
PFRA:	Preliminary Flood Risk Assessment;
PPS25:	Planning Policy Statement 25: Development and Flood Risk;
RFDC:	Regional Flood Defence Committee;
SAB:	SuDS Approving Body;
SFRA:	Strategic Flood Risk Assessment;
SuDS:	Sustainable Urban Drainage System;
SWMP:	Surface Water Management Plans;
UKCP09:	United Kingdom Climate Projections 2009;
WAG:	Welsh Assembly Government.

[Page left blank intentionally]

1

Introduction

1.1 Preliminary Flood Risk Assessment

Following the findings of the Pitt Report in 2008¹, the Government produced the Flood and Water Management Act 2010 (FWMA) to help manage flood risk in a more holistic way. The Act defines a lead role for local authorities in the management of local sources of flooding such as surface water; the Environment Agency retains its role in managing flood risk from main rivers and coastal sources.

In addition to this, the Government introduced the Flood Risk Regulations in 2009. These regulations transpose the ECC Floods Directive (Directive 2007/60/EC) into law.

Under the FWM Act, Cheshire East Council is designated a Lead Local Flood Authority (LLFA) and has been assigned a number of duties under law. A full description of these duties is provided in Section 2.

In particular, under the Flood Risk Regulations, the LLFA has a duty to prepare a number of documents, including:

- Preliminary Flood Risk Assessment (PFRA);
- Flood hazard and flood risk maps;
- Flood Risk Management Plans.

Table 1-A indicates the work required to meet the requirements of the Flood Risk Regulations. This PFRA aims to meet the first two requirements.

22 nd June 2011	Prepare Preliminary Flood Risk Assessment Report	The PFRA should focus on local flood risk arising from surface water, groundwater, ordinary watercourses, and canals.
22 nd June 2011	On the basis of the PFRA, identify Indicative Flood Risk Areas	Indicative Flood Risk Areas are a defined term, and are areas of nationally significant risk affecting 30,000 people or more. The PFRA is also required to record “locally significant risk areas” which are flood areas, above a locally determined threshold of affected people, and having significant harmful consequences.
22 nd June 2013	Prepare Flood Hazard Maps and Flood Risk Maps for each Flood Risk Area	Used to determine the level of hazard and risk within each Indicative Flood Risk Area (affecting 30,000 or more people).
22 nd June 2015	Prepare Flood Risk Management Plans for each Flood Risk Area	These are Plans setting out how the flood risk and hazard, identified by the Hazard and flood maps, are to be managed.

Table 1-A: Elements of Work required under the Flood Risk Regulations, 2009.

¹ Pitt Review (2008) Learning lessons from the 2007 flood

1.2 Aims and Objectives

1.2.1 Aims

The PFRA is a high level screening exercise, using readily available data, to locate areas where there is a risk of flooding from:

- *Ordinary Watercourses*
- *surface water runoff*
- *groundwater*
- *canals*

As described in Table 1-A, areas where the risk of local flooding is significant, affecting more than 30,000 people, are deemed Indicative Flood Risk Areas. If these areas are found to exist within the Local Authority Boundary, then they may warrant further examination at a later stage through the production of Flood Risk and Hazard maps and Flood Management plans. The PFRA will also seek to identify “Locally Significant Flood Risk Areas”. These are areas that the LLFA deems to be significant, although not as significant to warrant classing it as a Flood Risk Area.

The aim of this PFRA is to provide an assessment of local flood risk across the study area, including information on past floods and the potential consequences of future floods, and in so doing, satisfy the first two requirements of the Flood Risk Regulations, 2009 shown in Table 1-A.

1.2.2 Objectives

The objectives of this PFRA are as follows:

- *Identify relevant partner organisations involved in future assessment of flood risk and summarise means of future and ongoing stakeholder engagement;*
- *Describe arrangements for partnership and collaboration for ongoing collection, assessment and storage of flood risk data and information;*
- *Provide a summary of the systems used for data sharing and storing, and provision for quality assurance, security and data licensing arrangements;*
- *Summarise the methodology adopted for the PFRA with respect to data sources, availability and review procedures;*
- *Assess historic flood events within the study area from local sources of flooding (including flooding from surface water, groundwater and Ordinary Watercourses), and, where possible, the consequences and impacts of these events;*
- *Establish an evidence base of historic flood risk information, which will be built upon in the future and used to support and inform the preparation of CECs Local Flood Risk Strategy (a requirement of the Flood and Water Management Act, as described in Section 2.1.2);*
- *Assess the potential harmful consequences of future flood events within the study area;*

- *Review the provisional national assessment of indicative Flood Risk Areas provided by the Environment Agency and provide explanation and justification for any amendments required to the Flood Risk Areas.*

1.3 Study Area

The study area for this PFRA is the administrative boundary of CEC. This includes the following eight town councils:

1. Alsager;
2. Bollington;
3. Congleton;
4. Knutsford;
5. Middlewich;
6. Nantwich;
7. Poynton;
8. Sandbach.

The administrative boundary of Cheshire East stretches from Audlem in the south to Disley and Poynton in the North. The administrative area of Cheshire East covers approximately 1,116 km², and currently has a population of 358,900². CEC is predominately rural and contains the railway town of Crewe, the old mill towns of Macclesfield, Bollington and Congleton and the market towns of Nantwich, Knutsford and Sandbach, as well as Middlewich, Wilmslow, and smaller settlements such as Poynton, Alderley Edge, Holmes Chapel and Prestbury. The geographical extent of the study area is illustrated in Figure 1 below, and is shown in greater detail in Figure 1 of Appendix A.



Figure 1 Cheshire East Council Administrative Boundary

CEC is bounded to the west by Cheshire West and Chester Council, and eight other councils including Shropshire Council, Newcastle-under-Lyme Borough Council, Staffordshire Moorlands District Council, High Peak District Council, Stockport

² http://www.cheshireeast.gov.uk/about_cheshire_east/cheshires_changing_boundaries.aspx

Metropolitan Borough Council, Trafford Metropolitan Borough Council, and Warrington Borough Council.

The eastern extent of CEC lies within the Peak District National Park boundary.

CEC has good transport and communication links to large cities including Manchester, Liverpool and Birmingham. The M53, M56 and M6 motorways provide national transport links to the north and south of the UK. The A51 provides a direct link to Chester and North Wales, and the A500 links to Stoke-on-Trent and the West Midlands. The West Coast Mainline (railway) travels through CEC. The rail hub based in Crewe provides access into and out of the area providing a rail gateway to the Northwest with links to London, Scotland, Birmingham and Manchester, in addition to more local stations across Cheshire East.

The major rivers within the CEC administration boundary include the River Wheelock, Crocco, Dane, Bollin, Dean, Weaver and Gow. These are Main Rivers, managed by the Environment Agency North West Region. The area lies within the North West River Basin District.

The Shropshire Union Canal, Llangollen Canal, Bridgewater Canal, Macclesfield Canal, and the Trent and Mersey Canal are present in the CEC study area, and are managed by British Waterways.

The water company that serves the administrative area is United Utilities.

2

Lead Local Flood Authority Responsibilities**2.1 Introduction**

The preparation of a PFRA is just one of several responsibilities of LLFAs under the new legislation. This section provides an overview of other responsibilities CEC are obliged to fulfil under their role as a LLFA.

2.1.1 Coordination of Flood Risk Management

In his Review of the summer 2007 flooding, Sir Michael Pitt stated that “the role of local authorities should be enhanced so that they take on responsibility for leading the coordination of flood risk management in their areas”. As the designated LLFA, CEC is therefore responsible for leading local flood risk management across the study area.

Local flooding comes from a number of sources – surface water (runoff before it enters a sewer), groundwater, ordinary watercourses and canals. It is the responsibility of the LLFA to coordinate the response to flooding from these sources.

As stated previously, the Environment Agency are the lead organisation responsible for managing flooding from Main Rivers and the sea. The water company remains responsible for flooding from sewers, except where it is wholly or partly caused by rainwater entering the system. Floods or raw sewage, caused by blocking of a sewer, for example, are not covered by the regulations, neither is flooding from burst water mains.

Much of the local knowledge and expertise that CEC will need to enable it to coordinate the management of local flooding will reside within other partner organisations. It is crucial that the Council forges successful partnerships with these organisations to ensure effective coordination.

In order to contribute to the provision of a co-ordinated and ‘common sense’ approach to flood risk management across the study area, CEC have developed a number of work groups and forums to liaise with our most important stakeholders at the appropriate organisational level.

CEC has set up a Flood and Water Management Task Group, which includes representatives from the Environment Agency, and United Utilities. The task group includes key staff from the following departments within CEC: Emergency Planning, Building Control, Highways, GIS, Greenspaces, Finance and Environmental Planning.

As well as setting up the Task Group, CEC has set up strategic partnerships with Cheshire West and Chester Council, Warrington BC, Halton BC and St Helens BC, to ensure that lessons are learnt and knowledge is shared. The partnership also serves to ensure consistency amongst the councils, so that data can be shared in an effective manner.

The Flood Task Group and the Strategic Alliance between councils will be developed in the future as more of the requirements of the legislation become enacted.

It is recognised that members of the public may also have valuable information to contribute to local flood risk management more generally across the Cheshire East Council area. Stakeholder engagement can bring significant benefits to local flood risk management including building trust, gaining access to additional local knowledge and increasing the chances of stakeholder acceptance of options and decisions proposed in future flood risk management plans. As such, plans for public engagement will form part of future flood management strategies.

2.1.2 Further Responsibilities

Aside from forging partnerships and coordinating and leading on local flood management, there are a number of other key responsibilities that have arisen for Lead Local Flood Authorities from the FWMA and the Flood Risk Regulations. These responsibilities include:

Investigating flood incidents – LLFAs have a duty to investigate and record details of flood events, over and above a locally agreed significance threshold, within their area. This duty includes identifying which authorities have flood risk management functions and what they have done or intend to do with respect to the incident, notifying risk management authorities where necessary and publishing the results of any investigations carried out.

Asset Register – LLFAs also have a duty to maintain a register of structures or features which are considered to have an effect on flood risk, including details on ownership and condition as a minimum.

SuDS Approving Body – LLFAs are designated the SuDS Approving Body (SAB) for any new drainage system, and therefore must approve, adopt and maintain any new sustainable drainage systems (SuDS) within their area.

Local Strategy for Flood Risk Management – LLFAs are required to develop, maintain, apply and monitor a local strategy for flood risk management in its area. The local strategy will build upon information such as national risk assessments and will use consistent risk based approaches across different local authority areas and catchments.

Discharge Consents – LLFAs will be required to administer Discharge Consents under the Water Act. They will provide consent to developments or works that have an impact on Ordinary Watercourses, and take enforcement action against unconsented works.

Works powers – LLFAs have powers to undertake works to manage flood risk from surface runoff and groundwater, consistent with the local flood risk management strategy for the area.

Designation powers – LLFAs, as well as district councils and the Environment Agency have powers to designate structures and features that affect flooding or coastal erosion in order to safeguard assets that are relied upon for flood or coastal erosion risk management.

Duty to Cooperate and Share information – LLFAs, as well as other Flood Authorities (Environment Agency, Water Company, other LLFAs) have a duty to cooperate with each other, and also the power to request information, in connection with flooding, of any person or body.

3 Methodology and Data Review

3.1 Introduction

The PFRA is a high-level screening exercise used to identify areas where the risk of flooding is considered to be significant and warrants further examination and management through the production of flood risk and flood hazard maps and flood risk management plans.

The approach for producing this PFRA is based upon the Environment Agency's PFRA Final Guidance, which was released in December 2010. The PFRA is based on readily available or derivable data and with this in mind; the following methodology has been used to undertake the PFRA.

3.2 Methodology

3.2.1 Data Collection from Partner Organisations

Data from the following authorities and organisations is used for the preparation of this PFRA:

- *Environment Agency;*
- *Utilities companies (United Utilities);*
- *British Waterways;*
- *Cheshire Fire and Rescue Service.*

Table 3-A catalogues the relevant information and datasets held and used by partner organisations and provides a description of each of the datasets.

	Dataset	Description
Environment Agency	Areas Susceptible to Surface Water Flooding (AStSW)	The first generation national mapping, outlining areas of risk from surface water flooding across the country with three susceptibility bandings (less, intermediate and more).
	Flood Map for Surface Water (FMfSW)	The updated (second generation) national surface water flood mapping which was released at the end of 2010. This dataset includes two flood events (with a 1 in 30 and a 1 in 200 chance of occurring in any given year) and two depth bandings (greater than 0.1m and greater than 0.3m).
	Flood Map (Rivers and the Sea)	Shows the extent of flooding from rivers with a catchment of more than 3km ² and from the sea. Flood events with a 1% and 0.1% chance of occurring in any year are represented.
	Areas Susceptible to Groundwater Flooding	Coarse scale national mapping showing areas which are susceptible to groundwater flooding.
	Groundwater Emergence Maps	National mapping showing areas which have a high probability of groundwater emergence
	National Receptors Dataset	A national dataset of social, economic, environmental and cultural receptors including residential properties, schools, hospitals, transport infrastructure and electricity substations.
	Indicative Flood Risk Areas	Nationally identified flood risk areas, based on the definition of 'significant' flood risk described by Defra and WAG.
	Historic Flood Map	Attributed spatial flood extent data for flooding from all sources.
	Weaver Gowry CFMP and Upper Mersey CFMP	CFMP's consider all types of inland current and future flooding, from rivers, groundwater, surface water and tidal flooding and are used to plan and agree the most effective way to manage flood risk in the future.
CEC	Historical flooding records	Historical records of flooding from surface water, groundwater and ordinary watercourses.
	Anecdotal information relating to local flood history and flood risk areas	Anecdotal information from authority members regarding areas known to be susceptible to flooding from excessive surface water, groundwater or flooding from ordinary watercourses.
	Strategic Flood Risk Assessments (SFRA)	SFRA's may contain useful information on historic flooding, including local sources of flooding from surface water, groundwater and flooding from canals.
	Historical flooding records	Historical records of flooding from surface water, groundwater and ordinary watercourses.
	Multi-agency flood response plans	Regularly updated plans used by emergency responders, which hold details of historic flood locations and critical infrastructure
Water Company	DG5 Register	DG5 Register logs and records of sewer flooding incidents in each area.
Fire and Rescue	Incident response register	Issue logs of all events recorded by the Cheshire Fire & Rescue Service Department relating to flooding. This includes internal floods such as burst pipes and sewerage problems.

Table 3-A Relevant information and datasets

3.2.2 Data Limitations

A brief assessment of the data collection process is included in this chapter to provide transparency with respect to the methodology. By flagging up the issues identified in the data collection phase it is hoped this could serve as a catalyst to improve the collection of flood risk data going forward. A number of issues arose during the data collection process, as described below:

(a) Inconsistent Recording Systems

The lack of a consistent flood data within the recording system across CEC has led to inconsistencies in the recording of flood event data. This has resulted in incomplete, or sometimes nonexistent, flood record datasets. Further information on addressing this issue in the future is included in Chapter 7.

(b) Incomplete Datasets

As a result of the lack of consistent flood data recording arrangements (as described above), some of the datasets collated are not exhaustive and it is felt that they are unlikely to accurately represent the complete flood risk issues in a particular area. The corresponding gaps in flood data will hinder also the identification of accurate flood risk areas.

(c) Varied Quality of Data

Based upon the data collected from all sources described above, there was found to be varied quality in historic flood records and information. However under Section 21 of the Flood and Water Management Act 2010, lead local authorities will have a duty to investigate and maintain a register of flooding incidents. At present Cheshire East Council are working with the neighbouring authorities to produce consistent records across the area, and as such improve the quality of the data collected for future assessments.

(d) Records of Consequences of Flooding

Very few organisations were able to provide accurate details of the consequences of specific past flood events. This made assessing the consequences of historic flooding difficult.

3.2.3 Quality Assurance, Security and Data Restrictions

Data collected was subject to quality assurance measures to monitor and record the quality and accuracy of acquired information and datasets. A data quality score was given, which is a qualitative assessment based on the Data Quality System provided in the Surface Water Management Plans (SWMP) Technical Guidance document (March 2010). This system is explained in Table 3-B.

Data Quality Score	Description	Explanations	Example
1	Best possible	No better available, not possible to improve in the near future.	High resolution LiDAR River/sewer flow data Rain gauge data
2	Data with known deficiencies	Best replaced as soon as new data are available	Typical sewer or river model that is a few years old.
3	Gross assumptions	Based on experience and judgment.	Location, extent and depth of much surface water flooding Operation of un-modelled highway drainage. 'Future risk' inputs e.g. rainfall, population.
4	Heroic assumptions	An educated guess.	Ground roughness for 2d models.

Table 3-B Data Quality System from SWMP Technical Guidance (March 2010)

The use of this system provides a basis for analysing and monitoring the quality of data that is being collected and used in the preparation of the PFRA.

The security of data is also a key consideration when it comes to collecting, collating and storing sensitive data. All data collected is stored on local servers which are password protected. CEC must adhere to these data security measures to ensure that sensitive data is held in a secure manner.

4

Past Flood Risk**4.1 Introduction**

This section summarises the readily available and relevant information on past floods. The PFRA guidance requires floods identified with significant harmful consequences to be reported in the spreadsheet in Annex 1 of this report. ‘Significant harmful consequences’ are considered to be impacts of flooding that may have negative consequences for human health, the social and economic welfare of individuals and communities, infrastructure, and the environment (including cultural heritage).

The definition of a past flood with “significant harmful consequences” is left to the LLFAs to determine. The level of significance should be chosen so that only relatively harmful flood events are included in the PFRA. Such flood events are those that would be deemed significant when considered from a national perspective.

However, all flood events affecting property or people are significant to CEC, and justify being evaluated. The Local Flood Management Strategy, which will be produced following this PFRA will identify and seek to address these. For the purposes of this PFRA, the definition of “Significant” has been defined by CEC (in common with the other LLFAs in the Strategic Alliance) as a flood affecting:

- *80 houses (200 people using an average of 2.5 people per property) or more, or*
- *5 non-residential properties;*
- *1 piece of Critical Infrastructure.*

Past floods that meet the above criteria are reported in the spreadsheet of Annex 1. Other floods that do not meet the criteria, or for which the consequences are not known, are not included in the Annex, as per the PFRA guidance, but their locations are plotted on the relevant figures. The following sections discuss the “Significant” events, and other events that are known to have occurred.

4.2 Surface Water Flooding

Surface water flooding, in the context of the PFRA, is ponded or flowing water that sits above ground level. This may be a result of heavy rainfall which is unable to infiltrate into the ground, or is prevented from discharging into a drainage system or river channel, due to its volume, intensity, or because the receiving river/drain is already full. This is known as pluvial flooding. Pluvial flooding also includes overland flows from the urban/rural fringe entering the built up area.

Whilst pluvial flooding from heavy rainfall can occur anywhere in the Council's area, there are certain locations where these mechanisms are more prominent due to the urban nature of the catchment and complex hydraulic interactions between the tidal systems, urban watercourses, and surface water and combined sewer systems. Surface water flooding is known to be a problem in the urban areas where flooding often occurs following short, intense storms and the capacity of the urban drainage system is exceeded and water flows across the ground³.

³ Environment Agency (2009a) Upper Mersey Catchment Flood Management Plan, Summary Report, December 2009

As part of the PFRA process, historical flooding incidents were collected from a number of key flood risk stakeholders and from internal sources. Locations provided from internal consultation within CEC, and from data given in the Crewe and Congleton SFRA, are provided in Figure 2 in Appendix A. The data from the SFRA includes Fire & Rescue flooding incidents. The Macclesfield and Cheshire SFRA were also reviewed, but did not include any information on historic flood events. Specific details of the flood events (72 in total) are unknown, and not all are as a result of Surface Water Flooding, although it is reasonable to assume that the majority of them will be.

4.3 Fluvial Flooding

'Ordinary Watercourses' are any watercourses that are not designated a 'Main River' by the Environment Agency and therefore come under the control of CEC. These watercourses can vary in size considerably and can include drains and open ditches, to streams, brooks and small rivers. Ordinary Watercourses in Cheshire East have been identified using the Environment Agency's Detailed River Network (DRN) and are indicated on Figure 3 of Appendix A.

Ordinary Watercourses with known flood risks associated to them were previously known as Critical Ordinary Watercourses (COWs). However, in 2006/7, the Environment Agency reclassified all COWs as Main Rivers and took over responsibility for their maintenance and management, in a process known as enmainment.

However, since the enmainment of COWs, there have been a number of flooding incidents on Ordinary Watercourses not previously thought to have posed a risk. These watercourses remain the responsibility of CEC.

Internal consultations within CEC have revealed 19 historic fluvial events. Their locations are shown on Figure 3 in Appendix A. Two of these flooding events are "significant" when assessed against the criteria presented in Section 4.1, and are indicated as such on the Figure. These are flooding from the River Bollin, which flooded approximately 500 properties in November 1998, and flooding from the River Dane in during the same event, which flooded more than 200 properties. It should be noted that the CFMP records the number of properties affected during the event as 53; an obvious discrepancy in reported consequences. It can be agreed that it was an event that was notable for the large number of properties affected. As the event had significant consequences, further details are provided in the spreadsheet in Annex 1, as required by the PFRA guidance. Little information is known on the consequences of the remaining reported fluvial flood events and so they are not reported in the Annex.

Data on past instances of flooding from the Congleton Strategic Flood Risk Assessment (SFRA) and Crewe SFRA (described under Section 4.2 and shown on Figure 2 in Appendix A), which it is assumed is mostly as a result of surface water flooding, will inevitably include flooding from rivers. However, it is not known which locations this applies to.

The Chronology of British Hydrological Events database⁴ has been used to search for other historic fluvial flood events in the study area, the results of which are presented in Appendix B. Available fluvial flooding records range between 1574 and 1892. In addition to this, the Weaver Gowry Catchment Flood Management Plan

⁴ <http://www.dundee.ac.uk/geography/cbhe/>

details floods between 1946 and 2001. Details of these are also provided in Appendix B and in total over 23 flood events are recorded.

4.4 Sewer Flooding

Flooding from artificial drainage systems occurs when flow entering a system, such as an urban storm water drainage system, exceeds its conveyance capacity, the system becomes blocked or it cannot discharge due to a high water level in the receiving watercourse.

A sewer flood is often caused by surface water drains discharging into the combined sewer systems; sewer capacity is exceeded in large rainfall events causing the backing up of floodwaters within properties or discharging through manholes.

Some of the sewers across CEC date back to the Victorian times. Since then, the population has grown as the community has expanded. More houses and businesses mean increased discharges and less permeable surfaces for rainwater to drain into. Climate change is also believed to be leading to longer, heavier periods of rainfall. These two factors result in the existing sewers and drains not being able to cope at certain times.

Figure 4 in Appendix A presents the historic sewer flooding incidents as obtained from United Utilities. There have been a total of 271 historic sewer flooding (internal and external) incidents, particularly in the urban areas of Crewe, Sandbach, Alsager, Congleton, Macclesfield, Bollington, Middlewich and Poynton. There have been 81 incidents of internal sewer flooding, and 190 incidents of external flooding in the past.

4.5 Groundwater Flooding

Groundwater flooding is caused by the emergence of water from underground, either at point or diffuse locations. The occurrence of groundwater flooding is usually very local and unlike flooding from rivers and the sea, does not generally pose a significant risk to life due to the slow rate at which the water level rises.

However, groundwater flooding can cause significant damage to property, especially in urban areas, and can pose further risks to the environment and ground stability. There are several mechanisms which produce groundwater flooding including:

- *Prolonged rainfall;*
- *High in bank river levels;*
- *Artificial structures;*
- *Groundwater rebound;*
- *Mine water rebound.*

The Environment Agency's CFMPs do not consider groundwater flooding to be a significant issue in CEC's administrative boundary, as there is little historic evidence to suggest that groundwater flooding is an issue worth further investigation. However, maps showing the Area Susceptible to Groundwater Flooding suggest that groundwater is a potential issue. This is discussed further in Section 6.5.

4.6 Canal Flooding

British Waterways is the organisation responsible for the care and enhancement of the nation's 2,200-mile network of canals, much of which dates back to the 1800s. There are five canals present in the CEC administrative boundary.

The risk of flooding along each canal is dependent on a number of factors. As they are unnatural systems and heavily controlled, it is unlikely they will respond in the same way as a natural watercourse during a storm event. Flooding is more likely to be associated with residual risks, such as overtopping of canal banks, breaching of embanked reaches or asset (gate) failure. Each canal also has significant interaction with other sources of flood risk, such as the main rivers and the minor watercourses that feed them, or drains that cross beneath them.

Table 4-A presents locations where canal breaches and canal overtopping have occurred in the past.

Location	Description	Date
Past Canal Breach Events		
Bollington	Piping / Leak failure	1912
Disley	Culvert Failure	1941
Disley	Culvert Failure	1973
Church Minshull	Piping / Leak failure	1958
Bollington Embankment	Piping / Leak failure	2001
Baddiley	Culvert Failure	2006
Past Canal Overtopping Events		
Macclesfield	Specific location unknown	Unknown

Table 4-A Incidents of historic canal breaches and overtopping events

Figure 5 in Appendix A presents the distribution of historic canal flooding incidents. There have been a cluster of canal breaching incidents on the Macclesfield Canal at Bollington and Disley.

4.7 Interaction with Main Rivers and the Sea

The River Mersey Estuary lies outside of the study area, therefore there is considered to be no interaction between fluvial and tidal environments. The tidal limit of the River Gowy extends up to Trafford Bridge, and up to Frodsham on the River Weaver⁵ both of which lie outside of the East Cheshire study area, therefore there is considered to be no interaction between fluvial and tidal environments within the Administrative Boundary.

⁵ Environment Agency, Weaver Gowy Catchment Flood Management Plan, Summary Report, December 2009.

5 Future flood risk

5.1 Overview of Future Flood Risk

Whilst analysis of past flooding provides valuable information on the nature and extents of flooding that have occurred in CEC in the past, it does not necessarily inform us about how and where flooding may occur in the future.

Predictions of future flood risk are produced using combinations of hydrological and hydraulic modelling and analysis of past hydrological records to make future predictions. The following sources of flooding have been considered in subsequent sections of this report:

- *Ordinary watercourses (fluvial);*
- *Surface water;*
- *Groundwater;*
- *Canals.*

5.2 Surface Water Flooding

The Environment Agency has two national datasets showing surface water flooding which are:

- *Areas Susceptible to Surface Water Flooding (AStSWF);*
- *Flood Map for Surface Water (FMfSW).*

These datasets were used nationally to select the 10 Indicative Flood Risk Areas in England.

These surface water maps are not designed to assess the risks from other sources of flooding. However, as these datasets use a digital representation of the ground topography, they route surface runoff into channels and depressions. As the location of flooding is linked to topography and depressions, flooding from Ordinary Watercourses and groundwater may occur in the same places as flooding from surface runoff.

The overall administrative area of CEC is 1,116 km², which includes a vast range of land uses, topography, flooding causes/mechanisms, flooding probabilities and flood consequences. Artificial drainage systems within the study area will also vary greatly in terms of capacity, condition and reliability. Furthermore, specific localised features could significantly affect the extent, depth and velocity of surface water flooding. For example:

- *Surface features such as kerbs, ramps and privately owned walls/banks;*
- *Susceptibility of artificial drainage systems, channels and trash screens to blockage during a flood event;*
- *Land use management, such as direction of ploughing of agricultural land, vegetation cover etc;*
- *Steepness and permeability of areas contributing to surface water runoff.*

CEC are required by the Environment Agency to agree an appropriate dataset that represents the risk from surface water in their area. Both the Flood Map for Surface Water (FMfSW) data (Figure 6 in Appendix A) and the Areas Susceptible to Surface

Water Flooding (AStSWF) data (Figure 7 in Appendix A) were reviewed against the available historic flooding information provided by United Utilities and SFRA data. In general only a loose correlation was found between either of the datasets and the historic flooding information. Therefore, for the purposes of this PFRA, the AStSWF dataset has been used as the locally agreed surface Water information. This is because it represents a more conservative assessment of the level of risk, and is therefore more appropriate for a high level strategic study such as the PFRA.

Table 5-A shows the number of properties at risk from surface water flooding in the future (from the AStSWF map, Figure 7 in Appendix A).

Properties	Total number of properties within CEC	Less Risk	Intermediate Risk	More Risk
All	557,382	34,200	13,900	1,876
Residential	440,560	25,900	10,200	1,231
Non-residential	116,822	8,300	3,700	645

Table 5-A Properties at risk from future surface water flooding (using Areas Susceptible to Surface Water Flooding dataset)

The AStSWF maps show potential flooding resulting from a flood event with a 0.5% chance of occurring in any year. Flood depths in areas at less risk are likely to be between 0.1m and 0.3m; in areas of intermediate risk 0.3m to 1.0m; and in areas of more risk over 1.0m. For more frequent events of lesser magnitude, areas identified as being at more risk will flood first.

Property counts are derived from data provided by the Environment Agency or from counts undertaken using GIS software and the National Receptor Database.

The level of future flood risk and the estimated associated consequences are provided in the spreadsheet in Annex 2.

5.3 Fluvial Flooding

The river network data was used to identify Ordinary Watercourses and this was cross referenced with the Flood Map for Rivers and the Sea to assess potential future flood risk from this source. Flood Zone 2 extents (having between a 1 in 100 and 1 in 1000 annual probability of river flooding in any year) and Flood Zone 3 (having up to a 1 in 100 annual probability of occurrence in any one year) are shown in Figure 8 of Appendix A. In many areas the extents of Flood Zones 2 and 3 are very similar due to the local topography.

Figure 8 in Appendix A presents the future fluvial flood risk from Ordinary Watercourses in CEC. The main future flood risk is particularly focussed along the River Weaver which flows through Nantwich, the River Dane which flows through Holmes Chapel and Congleton; and on the River Dean near Bollington.

The CFMPs state that flooding will become more frequent in the future which will lead to an increase in the number of properties at fluvial flood risk across the area. Flood risk is expected to increase in the future particularly in Crewe, Nantwich and Congleton. River levels are expected to increase by 0.5m in Congleton, and 0.7m in Nantwich by 2100 for a 1 in 100 annual probability event.

5.4 Canal Flooding

The main risks from canals within the CEC administrative area are likely to be;

- **Areas where the water levels in the canal are elevated above the surrounding topography.** In such areas, any overtopping or breaching of canal side retaining structures have the potential to flow over low lying land and pond in natural depressions;
- **Areas where the canal is near to the natural river system and flood levels in the river can spill over into the canal system.** If this were to occur, then the flood water from the river can be transferred to areas remote from the original spill point.

Where the above situation could affect people, properties and critical infrastructure, the consequences of flooding will be greater. However, to quantify the impacts needs a detailed understanding of the potential overland flow routes from the canal.

British Waterways are currently working on a study to better understand the future flood risk from canals, which will be available to inform the second cycle of the PFRA process.

Given the above, there is currently no readily available information to assess the future flood risk from canals and no further analysis has been carried out.

5.5 Groundwater Flooding

The Environment Agency's national datasets provide an assessment of groundwater risk in terms of the percentage of a 1km² grid square susceptible to groundwater emergence. This is the Areas Susceptible to Groundwater Flooding (AS_tGwF). An additional dataset is the groundwater emergence data derived by Defra, which presents the groundwater risk in a different manner.

The future AS_tGwF risk is shown on Figure 9 of Appendix A. This shows that the probability of groundwater flooding is very high in Nantwich, and parts of Crewe and Knutsford. The probability of future groundwater flooding tends to be lower in the north east of the study area. As discussed in Section 4.5, there does not appear to be a historical risk of groundwater flooding.

The Groundwater Emergence Zone data is shown on Figure 10 of Appendix A. If Figure 9 is compared to Figure 10, it can be seen that the risk indicated by the groundwater emergence plan is significantly lower, and more in line with the lack of historical groundwater flooding. It could therefore be deduced that the groundwater risk is more accurately represented by the groundwater emergence data (Figure 10) and that the risk indicated by Figure 9 is a conservative estimate.

5.6 Sewer Flooding

As discussed in Section 4.4, records of sewer flooding have been obtained from United Utilities. Based on information readily available on their websites in their "Strategic Direction Statements" they are proposing to address a significant number of sewer flooding problems by 2015. This is to be achieved through investment in the completion of a number of studies and capital works projects.

5.7 Climate Change and Long Term Developments

5.7.1 The Impacts of Climate Change

The Evidence

There is clear scientific evidence that global climate change is happening now. It cannot be ignored.

Over the past century around the UK we have seen sea level rise and more of our winter rain falling in intense wet spells. Seasonal rainfall is highly variable. It seems to have decreased in summer and increased in winter, although winter amounts changed little in the last 50 years. Some of the changes might reflect natural variation, however the broad trends are in line with projections from climate models.

Greenhouse gas (GHG) levels in the atmosphere are likely to cause higher winter rainfall in future. Past GHG emissions mean some climate change is inevitable in the next 20-30 years. Lower emissions could reduce the amount of climate change further into the future, but changes are still projected at least as far ahead as the 2080s.

We have enough confidence in large scale climate models to say that we must plan for change. There is more uncertainty at a local scale but model results can still help us plan to adapt. For example we understand rain storms may become more intense, even if we can't be sure about exactly where or when. By the 2080s, the latest UK climate projections (UKCP09) are that there could be around three times as many days in winter with heavy rainfall (defined as more than 25mm in a day). It is plausible that the amount of rain in extreme storms (with a 1 in 5 annual chance, or rarer) could increase locally by 40%.

5.7.2 Key Projections for North West River Basin District

CEC lies within the North West River Basin District. The following outlines the key climate change projections for the North West River Basin District.

If emissions follow a medium future scenario, UKCP09 projected changes by the 2050s relative to the recent past are:

- *Winter precipitation increases of around 14% (very likely to be between 4 and 28%);*
- *Precipitation on the wettest day in winter up by around 11% (very unlikely to be more than 25%);*
- *Relative sea level at Morecambe very likely to be up between 6 and 36cm from 1990 levels (not including extra potential rises from polar ice sheet loss);*
- *Peak river flows in a typical catchment likely to increase between 11 and 18%.*

Increases in rainfall are projected to be greater near the coast than inland.

5.7.3 Implications for Flood Risk

Climate changes can affect local flood risk in several ways. Impacts will depend on local conditions and vulnerability.

Wetter winters and more of this rain falling in wet spells may increase river flooding especially in steep, rapidly responding catchments. More intense rainfall causes more surface runoff, increasing localised flooding and erosion. In turn, this may increase pressure on drains, sewers and water quality. Storm intensity in summer could increase even in drier summers, so we need to be prepared for the unexpected.

Drainage systems in the district have been modified to manage water levels and could help in adapting locally to some impacts of future climate on flooding, but may also need to be managed differently. Rising sea or river levels may also increase local flood risk inland or away from major rivers because of interactions with drains, sewers and smaller watercourses.

Where appropriate, we need local studies to understand climate impacts in detail, including effects from other factors like land use. Sustainable development and drainage will help us adapt to climate change and manage the risk of damaging floods in future.

5.7.4 Adapting to Change

Past emission means some climate change is inevitable. It is essential we respond by planning ahead. We can prepare by understanding our current and future vulnerability to flooding, developing plans for increased resilience and building the capacity to adapt. Regular review and adherence to these plans is key to achieving long-term, sustainable benefits.

Although the broad climate change picture is clear, we have to make local decisions about uncertainty. We will therefore consider a range of measures and retain flexibility to adapt. This approach, embodied within flood risk appraisal guidance, will help to ensure that we do not increase our vulnerability to flooding.

5.7.5 Long Term Developments

It is possible that long term developments might affect the occurrence and significance of flooding. However current planning policy aims to prevent new development from increasing flood risk.

In England, Planning Policy Statement 25 (PPS25)⁶ on development and flood risk aims to "ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk. Where new development is, exceptionally, necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and where possible, reducing flood risk overall".

Adherence to Government policy ensures that new development does not increase local flood risk. However, in exceptional circumstances the Local Planning Authority

⁶ Communities and Local Government (2010) Planning Policy Statement 25: Development and Flood Risk. Revised March 2010.

may accept that flood risk can be increased contrary to Government policy, usually because of the wider benefits of a new or proposed major development. Any exceptions would not be expected to increase risk to levels which are "significant (in terms of the Government's criteria).

6

Review of Indicative Flood Risk Areas

6.1 Overview

As described in Section 1.2.1, in order to ensure a consistent national approach, Defra have identified significant criteria and thresholds to be used for defining flood risk areas. Guidance on applying these thresholds has been released in Defra's document "*Selecting and reviewing Flood Risk Areas for local sources of flooding*". In this guidance document, Defra have set out agreed key risk indicators and threshold values which must be used to determine Flood Risk Areas.

The methodology is based on using national flood risk information to identify 1km grid squares where local flood risk exceeds a defined threshold. Where a cluster of these grid squares leads to an area where flood risk is most concentrated, and, over 30,000 people are predicted to be at risk of flooding, this area has been identified as an Indicative Flood Risk Area. Figure 11 in Appendix A shows the High Risk Areas identified by Defra.

None of the clusters shown affect more than 30,000 people, and therefore there are no Indicative Flood Risk Areas within the CEC boundary, as defined by the criteria set out by Defra.

[Page left blank intentionally]

7

Next Steps**7.1 Future Data Management Arrangements**

In order to continue to fulfil their role as LLFA, CEC are required to investigate future flood events and ensure continued collection, assessment and storage of flood risk data and information. A central flood data collection spreadsheet will be created and updated with each flood event.

It is crucial that all records of flood events are documented consistently and in accordance with the INSPIRE Directive (2007/2/EC). It is recommended that a centralised database will be kept up to date by CEC, who have the overall responsibility to manage flood data throughout the administrative area. This can be used as an evidence base to inform future assessments and reviews and for input into the mapping and planning stages.

At present the proposed method for flood event data collection and management is being prepared.

7.2 Scrutiny and Review Procedures

The scrutiny and review procedures that must be adopted when producing a PFRA are set out by the European Commission. Meeting quality standards is important in order to ensure that the appropriate sources of information have been used to understand flood risk and the most significant flood risk areas are identified.

Another important aspect of the review procedure is to ensure that the guidance is applied consistently; a consistent approach will allow all partners to understand the risk and manage it appropriately. The scrutiny and review procedure will comprise two key steps, namely, Local Authority Review and Environment Agency Review.

The scrutiny and review procedures that must be adopted when producing a PFRA are set out by the European Commission. Meeting quality standards is important in order to ensure that the appropriate sources of information have been used to understand flood risk and the most significant flood risk areas are identified.

Another important aspect of the review procedure is to ensure that the guidance is applied consistently; a consistent approach will allow all partners to understand the risk and manage it appropriately. The scrutiny and review procedure will comprise two key steps, as discussed below.

The Review Checklist in Annex 4 of this document is used by all LLFA's and the Environment Agency review teams to ensure a consistent review process is applied.

7.2.1 Local Authority Review

The first part of the review procedure is through an internal Local Authority review of the PFRA, in accordance with appropriate internal review procedures. Internal approval should be obtained to ensure the PFRA meets the required quality standards, before it is submitted to the Environment Agency. Approval is not, however, required before submission to the Environment Agency on 22nd June, but must be obtained before 18th August 2011.

Within CEC, the PFRA will be taken to the Flood Risk Management Task Group for approval. It will then be taken for approval by an overview and scrutiny committee consisting of Elected Members for the administrative area.

7.2.2 Environment Agency Review

Under the Flood Risk Regulations, the Environment Agency has been given a role in reviewing, collating and publishing all of the PFRAs once submitted.

The Environment Agency will undertake a technical review (area review and national review) of the PFRA. If satisfied, they will recommend submission to the relevant Regional Flood Defence Committee (RFDC) for endorsement. RFDCs will make effective use of their local expertise and ensure consistency at a regional scale. Once the RFDC has endorsed the PFRA, the relevant Environment Agency Regional Director will sign it off, before all PFRAs are collated, published and submitted to the European Commission.

7.2.3 PFRA Review Cycle

The PFRA must be reviewed and updated every 6 years. The first review cycle of the PFRA must be submitted to the Environment Agency by the 22nd of June 2017. They will then submit it to the European Commission by the 22nd of December 2017 using the same review procedure described above. Although the requirement is for the PFRA to be reviewed every 6 years, CEC will treat it as a living document and update the information contained within it on a regular basis.

Appendix A Figures

Figure 1	Cheshire East Boundary and PFRA Study Area
Figure 2	Historic Surface Water Flooding Incidents
Figure 3	Historic Fluvial Flooding Incidents
Figure 4	Historic Sewer Flooding Incidents
Figure 5	Historic Canal Flooding Incidents
Figure 6	Future Flooding – Flood Map for Surface Water (FMfSW)
Figure 7	Future Flooding – Areas Susceptible to Surface Water Flooding (AStSWF)
Figure 8	Future Flooding - Fluvial Flood Map for Ordinary Watercourses
Figure 9	Future Flooding – Areas Suceptible to Groundwater Flooding (AStGwF)
Figure 10	Future Flooding – Groundwater Emergence Plan
Figure 11	High Surface Water Flood Risk Areas

[Page left blank intentionally]

Appendix B Historic Flood Chronology

The following table contains details on historical flood incidents on Main Rivers from the University of Dundee and the Environment Agency's Catchment Flood Management Plans

Year	Month	Details
1574	11	"On the 26th. November, 1574, there was a great flood when the river Weaver broke its banks, flooding 64 houses in the vicinity. The river Weaver "came up to the bridge" according to one eye-witness " [R. Weaver]
1644	01	"The royalist troops had besieged Nantwich on both sides of the river, and a flood had separated their forces." [R Weaver]
1644	01	Nantwich siege:" A sudden thaw caused the River Weaver to flood and Beam Bridge to be broken up" [R Weaver]
1656	06	"Great Flood at Nantwich 1656 June 17" [R Weaver]
1789	10	1789 October 7 p[34] Nantwich, Cheshire: "Early on the morning of the 7th inst, the banks of the aqueduct of the Staffordshire canal, across the Wincham valley, in this county, gave way, from whence the water rushed down into the river beneath with the greatest impetuosity. Two corn-mills on the same stream below were in imminent danger of being forced down by the vast body of water driving from the canal upon them, but fortunately received much less damage than might have been expected; in consequence of which, and the general heavy rains on the preceding night, there was one of the greatest floods ever remembered on the river Weaver on Wednesday last [7/10/1789]. The water in the river rose from 16 to 18 feet above its usual height. Most of the streets were under a violent current of water, from six to eight feet deep, and almost every avenue impassable except in boats. Several hundred thousand bushels of salt were destroyed, and very great injury done to the salt-houses; the town and salt-works surrounded, and in many places three parts covered with one general inundation, formed a scene beyond description awful" [Weaver]
1799	04	1799 April 6 p22: "... So deep was the snow in the neighbourhood of Congleton, that the Liverpool coach was entirely buried in it ..." [R. Dane]
1852	11	1852 November 17 River Weaver flood
1863	01	1863 January 2 River Weaver flood
1872	06	1872 June 18 4.27 in. rain at Macclesfield, Cheshire [ha 069, upper Bollin]
1872	06	1872 June 19 River Weaver flood
1872	10	1872 October 21 River Weaver flood
1872	06	1872 June 18 Rainfall observer for Macclesfield noted "Thunderstorm lasting nearly 12 hours; rain for 10 hours, in which the (here) unprecedented fall of 4.27 in. was registered; serious damage by floods in the town and district." [R. Bollin]
1877	07	1877 July 15 River Weaver flood
1877	12	1877 December 30 River Weaver flood
1877		"In 1877 and 1879 there were again high floods, the river Weaver having risen from seven to eight feet above the normal level; but since the construction of the Dutton sluices, which came into operation in 1881-82, and works of a like nature [i.e. other engineering works on the Weaver] ... floods have apparently become a thing of the past."
1879		"In 1877 and 1879 there were again high floods, the river Weaver having risen from seven to eight feet above the normal level; but since the construction of the Dutton sluices, which came into operation in 1881-82, and works of a like nature [i.e other engineering works on the Weaver] ... floods have apparently become a thing of the past."
1879	08	1879 August 18 River Weaver flood
1880	08	1880 August 8 River Weaver flood
1880	10	1880 October 28 River Weaver flood
1882	08	1882 August 24 Rainfall observer at Macclesfield (Park) noted (p[18]) "Thunder, heavy rain and floods." [upper Bollin]

1886	05	1886 May 14 River Weaver flood
1887	06	1887 June Rainfall observer at Macclesfield (The Park) noted "...a great amount of evaporation, which resulted in an aridity of the soil never before experienced."
1892	12	"During present week [source dated December 17th, 1892] ... [an] enormous body of floodwater also found its way into the river Weaver, but the authorities [due to engineering works which have improved flow in the Weaver]... experienced little or no difficulty in coping with that emergency. At no period during the week has the water risen to a greater height than 19 inches above the ordinary water mark."
1892	12	"Still, there were high floods [around Northwich] in 1872, and the late Judge Hardern, who was holding a county court in the Drill Hall, had to adjourn after having been addressed by advocates standing on chairs, the water which had suddenly overflowed the banks of the [river] Dane [a tributary of the Weaver] having flooded the room."
Feb 1946		Heavy rain and snowmelt caused flooding on the Weaver at Northwich, affecting 326 properties. Event probability was estimated as being 1%.
Feb 1977		Heavy rainfall event caused flooding on the River Weaver at Northwich, flooding 15 buildings. Event probability was estimated as being 10%.
August 1987		Heavy rainfall caused flooding on the River Dane at Congleton, affecting 27 buildings. Event probability was estimated as being 10%.
Nov 1998		Heavy rainfall caused flooding on the Dane at Congleton and Biddulph. Around 53 properties were affected, and event probability was estimated as being 5%.
Oct 2000		Heavy rainfall caused flooding from the Weaver Navigation at Nantwich and Northwich. More than 6 properties were affected and the event probability was estimated as being 10%.
June 2001		Heavy rainfall caused flooding at Sandbach and Northwich from the River Dane and Weaver Navigation. Seven properties were affected and the probability was estimated as being 20%.

Annex 1 Past Floods Spreadsheet

--

[Page left blank intentionally]

Annex 2 Future Floods Spreadsheet

[Page left blank intentionally]

Annex 3 Flood Risk Areas

[Page left blank intentionally]

Annex 4 PFRA Checklist

[Page left blank intentionally]

Notes for Completing PFRA Re

General Notes for Use	
a	This review checklist has been prepared by the Environment Agency as Annex 3. The checklist is intended to help Lead Local Flood Authorities (LLFAs) review their PFRA with the Environment Agency's PFRA guidance, and Defra/WAG's guidance on se
b	The same review checklist will be used by the Environment Agency for review of f
c	The worksheet titled PFRA Review Coversheet is a summary sheet, which shoul
d	The worksheet titled Review Checklist has been developed using the 10 steps co
e	In the Review Checklist there is a column for LLFA completion which is coloured p and one for the national Review Panel (green).
f	Boxes which are greyed out do not need to be completed.
g	Supporting notes are provided in Column C of the Review Checklist to help LLFAs
h	Some of the questions have drop-down responses to select from, and others are t identify the type of response required.
i	Additional columns or questions should not be added to the spreadsheet.

view Checklist

Users
of the Preliminary Flood Risk Assessment (PFRA) guidance. The RAs and any Flood Risk Areas. It should be used in conjunction electing and reviewing Flood Risk Areas for local sources of
PFRA and Flood Risk Areas
l be completed by LLFAs before submitting to the Environment
ntained in the PFRA Guidance (Table 1, page 9).
pale blue, one for Environment Agency local office staff (yellow),
s and the Environment Agency respond to the questions.
for free-text comments. The notes for completion in column C

LLFAs should complete the pale blue sections with the relevant information, and send to their Environment Agency Local Area Contact along with the Preliminary Assessment Report and Annexes. Yellow and green boxes on this coversheet are for Environment Agency completion

Preliminary Flood Risk Assessment Review

LLFA Name	Cheshire East Council
If collaboration, list other LLFAs	
LLFA Lead contact name	
Email address	
Contact telephone number	
Date sent to Environment Agency	

Documents submitted

	LLFA	EA date received
Preliminary Assessment Report	Yes	
Annex 1 - Past floods reporting template	Yes	
Annex 2 - Future floods reporting template	Yes	
Annex 3 - Flood Risk Area reporting template	Yes	
Annex 4 - Review checklist	Yes	

Flood Risk Areas

Was there an indicative Flood Risk Area?	No
Is a Flood Risk Area proposed?	No

Approvals

LLFA approval

Name	
Title	
Date	

For completion by Environment Agency

Region		
Area		
Lead contact name		
	Review date	Recommendation
Environment Agency area		
National review panel		
RFCC/FRMW		

Regional Director Sign-off		
Ministerial referral (if applicable)		

Preliminary Flood Risk Assessment Checklist					
LLFA Name:					
Checklist questions		Notes for completion	LLFA	Environment Agency area review	Environment Agency national review
Step 1 Set up governance and develop partnerships					
1.1	Have appropriate governance and partnership arrangements been set up?	Refer to section 2.3 of guidance. Governance and partnership arrangements should be to the satisfaction of the LLFA.			
1.2	Who in the LLFA reviewed the PFRA and when was it done?	Please state the review and approval process and when approval was gained e.g. Officer, Scrutiny Committee, Cabinet. Refer to Section 5 of the guidance.			
Step 2 Determine appropriate data systems					
2.1	Has a data management system been established and implemented?	See Annex 5 for information about data standards	Yes		
Step 3 Collate information on past and future floods and their consequences					
3.1	Has information been requested from all relevant partners?	See Flood Risk Regulations Part 6 Co-operation.	Yes		
3.2	Are there any gaps in available information? (This could include gaps which could have been filled but weren't, or gaps which couldn't be filled because the information wasn't available)	LLFAs - Are there gaps in certain locations, or for certain events that you are aware of, or for certain sources of flooding (such as groundwater). Respond with Yes/No and provide comments on any missing information. EA Review - Has all available information has been gathered and included?	No		
Step 4 Determining locally agreed surface water information					
4.1	Which dataset (or combination of datasets) has been determined as "locally agreed surface water information"?	LLFAs - Select from drop down. Refer to "Locally agreed surface water information" text box in section 3.5.1 (p.17) of guidance. EA review - Has this been agreed?	Areas Susceptible to Surface Water Flooding		
4.2	Has the locally agreed surface water information been clearly stated and presented (on a map) in the Preliminary Assessment Report?	LLFAs - Select Yes/No from drop down list. Refer to "locally agreed surface water information" text box in section 3.5.1 (p.17) of guidance.	Yes		
4.3	If available, what is the total property count for locally agreed surface water information in the LLFA?	If known, please enter the total number of properties at risk in the LLFA.	49976		
4.4	If applicable, has the method for counting properties been described in the Preliminary Assessment Report?	Refer to text box on page 17 of guidance	Yes		
4.5	Has available information on local drainage capacity (where used to inform the determination of locally agreed surface water information) been included in the report?	Refer to text box on page 17 of guidance. Information provided on drainage may inform options for any future improvements to the Flood Map for Surface Water.	N/A		

Preliminary Flood Risk Assessment Checklist					
LLFA Name:					
Checklist questions		Notes for completion	LLFA	Environment Agency area review	Environment Agency national review
Step 5 Complete Preliminary Assessment Report Document					
5.1	Does the Preliminary Assessment Report cover all the content described in Annex 1 of the Environment Agency's PFRA guidance?	LLFAs - If the Preliminary Assessment Report contains all the content described in Annex 2 of the PFRA guidance, respond with a 'Yes'. If there are some elements missing, please provide a brief explanation. EA Review - Include comments on any missing content.	Yes		
5.2	Has a summary table of flood events been produced?	Refer to section 3.4 and 3.5 of guidance	Yes		
5.3	Has a description of past flood events been included?	Refer to section 3.4 and 3.5 of guidance	Yes		
5.4	Has additional information been included on climate change and long term developments?	Refer to 3.6 of guidance. Standard text has been provided for Preliminary Assessment Reports which meets the minimum requirements of the Flood Risk Regulations. Please respond with Yes or No, and if additional information has been included, please state the information source(s)	Yes		
Step 6 Record information on past and future floods with significant consequences in spreadsheet					
6.1	Are records of past flooding with significant harmful consequences recorded on the Preliminary Assessment Report spreadsheet (Annex 1 of Preliminary Assessment Report) ?	LLFAs - past flooding should be recorded on the spreadsheet and included as Annex 1 of the Preliminary Assessment Report. EA review - Are all the mandatory fields complete?	Yes		
6.2	Are there any past floods with significant harmful consequences that have not been recorded? If so, please explain why not.	LLFAs - Respond with Yes or No. If No, provide additional information e.g. anecdotal information on flood, but not enough evidence to include EA review - Do you agree with LLFA response and comments?	No		
6.3	Have any additional records of future flooding (other than the national dataset information which is already completed) been recorded on the future flooding Preliminary Assessment Report spreadsheet (Annex 2 of Preliminary Assessment Report)	LLFAs - future flooding information should be recorded on the spreadsheet and included as Annex 2 of the Preliminary Assessment Report. EA review - Are all mandatory fields complete?	No		
Step 7 Illustrate information on past and future floods					
7.1	Have summary maps been produced for past and future floods?	Refer to section 3.4 and 3.5 of guidance	Yes		
Step 8 Review indicative Flood Risk Areas					
8.1	Is your LLFA within an indicative Flood Risk Area?	Indicative Flood Risk Areas were provided to LLFAs by the Environment Agency in December 2010.	No		
8.2	If the answer to 8.1 is yes, have you reviewed it using the locally agreed surface water information, and relevant local information in the Preliminary Assessment Report?	Refer to section 4 of guidance. LLFAs should identify whether they have reviewed against local information or just used the indicative Flood Risk Area information provided by the Environment Agency.	N/A		

Preliminary Flood Risk Assessment Checklist					
LLFA Name:					
Checklist questions		Notes for completion	LLFA	Environment Agency area review	Environment Agency national review
Step 9 Identify Flood Risk Areas					
9.1	Is a Flood Risk Area proposed?	LLFA - select a response from the drop down list and then complete the relevant questions 9.1.1 - 9.1.5. (NB. Indicative Flood Risk Areas can be amended due to Geography, past flooding and/or future flooding.)	No - no Flood Risk Area is proposed (go to question 9.3)		
9.1.1	If the proposed Flood Risk Area is exactly the same as the indicative Flood Risk Area, please confirm.	LLFA - please confirm that the boundary of the indicative Flood Risk Area has not been changed and no change has been made to the flood risk indicators. EA review - please confirm			
9.1.2	If changes have been made to the indicative Flood Risk Area because of geography, please identify what changes have been made.	Use the drop down list to identify the reasons for the change. Options are the same as the table on page 26 of the PFRA guidance. EA review - please confirm evidence supports change			
9.1.3	If changes have been made to the indicative Flood Risk Area because of past / historic flooding, please indicate the changes and the reasons why.	LLFA - identify the scale of the changes made e.g. major/minor increase or decrease in size of Flood Risk Area and the source of information used e.g. records of historic flooding. EA review - confirm scale of the changes made and provide indication of confidence in the evidence provided e.g. anecdotal evidence versus detailed report on flooding event.			
9.1.4	If changes have been made to the indicative Flood Risk Areas because of future flooding, please indicate the changes and the reasons why.	LLFA - identify the scale of the changes made e.g. major/minor increase or decrease in size of Flood Risk Area and the source of information used e.g. detailed modelling as part of SWMP. EA review - confirm scale of the changes made and indication of confidence in the evidence			
9.1.5	If a new Flood Risk Area is being proposed, does it meet the Defra / WAG thresholds?	Criteria and thresholds are set out in the Defra/WAG guidance on selecting and reviewing Flood Risk Areas for local sources of flooding EA review - identify the evidence provided to support this and indicate degree of confidence in the evidence.			
9.2	Does the proposed Flood Risk Area include flooding from interactions with main river, reservoirs or the sea?	LLFAs should respond with Yes or No. EA Review - Summarise the location and nature of interactions i.e. river or sea.			
9.3	Has an indicative Flood Risk Area been deleted?	LLFA - Respond with Yes/No and if an indicative Flood Risk Area has been deleted please provide a short description why. EA - confirm the evidence presented to support this is aligned to 'locally agreed surface water information'	No		
Step 10 Record information including rationale - ONLY COMPLETE IF ANSWER TO 9.1 IS YES					
10.1	If proposing Flood Risk Areas, have the mandatory fields in the spreadsheet been completed?	LLFAs - the spreadsheet indicates mandatory columns to be completed. EA Review - Are all mandatory fields complete?			
10.2	Has a rationale and evidence for amending/adding/deleting Flood Risk Areas been included in the Preliminary Assessment Report?	LLFAs - Refer to Table 5 on page 26 of the PFRA guidance and Annexes A-D of the Defra/WAG Guidance. Rationale should be included in "Identification of Flood Risk Areas" section of Preliminary Assessment Report. EA Review - Confirm that supporting evidence for any amendments/additions/deletions has been provided in the Preliminary Assessment Report and annexes			

This page is intentionally left blank

Preliminary assessment report spreadsheet: instructions

Introduction:

This spreadsheet contains 3 sheets, for reporting details of a preliminary assessment report.
The sheets are labelled Annex 1, 2 and 3 and should remain so.
This Environment Agency's PFRA Guidance should be referred to when completing the Annexes.
Reporting information on past floods (Annex 1) is described in section 3.4 of the PFRA Guidance.
Reporting information on future floods (Annex 2) is described in section 3.5 of the PFRA Guidance.
Note that information might not be available for many of the optional fields in Annexes 1 and 2.
Reporting information on Flood Risk Areas (Annex 3) is described in section 4.4 of the PFRA Guidance.
If a PFRA does not identify a Flood Risk Area, Annex 3 does not have to be completed.

Please select a Lead Local Flood Authority from the following list:

Note that only one LLFA name can be selected. Where several LLFAs are working together, select one of the LLFAs, and then list the others below. If a particular LLFA is leading the exercise then it should be identified in the box in row 15. If there is no particular lead then it does not matter which one is selected; for example you might enter the LLFA that comes first among the group alphabetically.

Select here: Cheshire East

Working with: *(only complete this box where several LLFAs are working together to produce a PFRA)*

For Annexes 1, 2 and 3:

Mandatory content to meet European Commission reporting requirements is shown in **red**.
If an optional field is not applicable, record "Not applicable" or "NA".
If an optional field is not known, record "Unknown".

For Annex 1 in particular:

Note that only past floods with significant consequences need to be reported in Annex 1.
Each past flood record must have significant consequences for at least one type of consequence (human health, economic, environment, or cultural).
Some information on past floods is optional, but only for this first PFRA cycle. In future cycles, the European Commission will require more information to be reported for floods that occur after 22 Dec 2011. This is shown by the fields labelled "Optional for first cycle".
LLFAs should record the following information from 22 Dec 2011: Start date, Days duration, Probability, Main source, Main mechanism, Main characteristics, and Significant consequences of flooding.

ANNEX 1: Records of past floods and their significant consequences (preliminary assessment report spreadsheet)											
Field:	Flood ID	Summary description	Name of Location	National Grid Reference	Location Description	Start date	Days duration	Probability	Main source of flooding	Additional source(s) of flooding	Confidence in main source of flooding
Mandatory / optional: Format:	Mandatory Unique number between 1-9999	Mandatory Max 5,000 characters	Mandatory Max 250 characters	Mandatory 12 characters: 2 letters, 10 numbers	Optional Max 250 characters	Optional for first cycle 'yyyy' or 'yyyy-mm' or 'yyyy-mm-dd'	Optional for first cycle Number with two decimal places	Optional for first cycle Max 25 characters	Optional for first cycle Pick from drop-down	Optional Max 250 characters, same source terms	Optional Pick from drop-down
Notes:	A sequential number starting at 1 and incrementing by 1 for each record.	Description of the flood and its adverse or potentially adverse consequences. Where available, information from other fields (<u>Start date</u> , <u>Days duration</u> , <u>Probability</u> , <u>Main source</u> , <u>Main mechanism</u> , <u>Main characteristics</u> , <u>Significant consequences</u>) should be re	Name of the locality associated with the flood, using recognised postal address names such as streets, towns, counties. If the flood affected the whole LLFA, then record the name of the LLFA.	Reference of the centroid (centre point, falls within polygon) of the flood extent, or of the area affected if there is no extent information.	A description of the general location that was flooded.	The date when the flood commenced - when land not normally covered by water became covered by water.	The number of days (duration) of the flood - flood occurring in any given year - record X from "a 1 in X chance of occurring in any given year". Where this is difficult to estimate, a range can be recorded.	The chance of the flood occurring in any given year - record X from "a 1 in X chance of occurring in any given year". Where this is difficult to estimate, a range can be recorded.	Pick the source from which the majority of flooding occurred. Refer to the PFRA guidance for definitions of sources.	If flooding occurred from, or interacted with, any other sources (other than the <u>Main source of flooding</u>), report the source(s) here, using the same source terms.	Pick a broad level of confidence in the <u>Main source of flooding</u> from; 'High' (compelling evidence of source - about 80% confident that source is correct), 'Medium' (some evidence of source but not compelling - about 50% confident that source is correct) '
Example:		1 On the 14 April 1998 an intense storm system produced surface water flooding across Essex, concentrated in the west of the county. The flooding lasted about 6 hours, and 23 residential properties were recorded as suffering internal flooding, in Epping and North Weald. The surface runoff exceeded the drainage capacity in several places, and so probably had a 1 in 30 to 1 in 50 chance of occurring in any given year.	Essex	SX1234512345	Several towns and villages across west Essex	1998-04-15		0.25 20-50	Surface runoff		High
Records begin here:		1 Garden Street, Macclesfield. Flooding from the river Bollin during a significant flood event in October 1998. Major flooding to properties and commercial premises. Estimated return period :1 in 100 year event.	Macclesfield	SJ91917433	Macclesfield Town	1998		3	100 Main rivers		High
		2 Queen street/Royle Street Congleton, Following extreme heavy rain fall in October 1998, the River Dane swelled and burst its banks Flooding the properties and Comercial premises surrounding this location. It also effected Havvanha Street and Worral Street	Congleton	SJ85846332	Congleton Town	1998		3	100 Main rivers		High

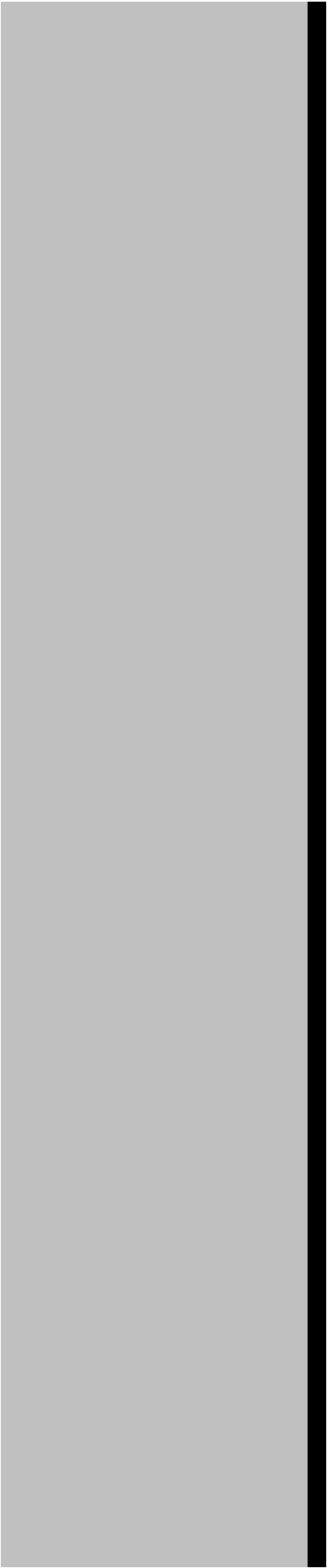


Main mechanism of flooding	Main characteristic of flooding	Significant consequences to human health	Human health consequences - residential properties	Property count method	Other human health consequences	Significant economic consequences	Number of non-residential properties flooded	Property count method	Other economic consequences	Significant consequences to the environment	Environment consequences	Significant consequences to cultural heritage	Cultural heritage consequences
Optional for first cycle Pick from drop-down	Optional for first cycle Pick from drop-down	Mandatory Pick from drop-down	Optional Number between 1-10,000,000	Optional Pick from drop-down	Optional Max 250 characters	Mandatory Pick from drop-down	Optional Number between 1-10,000,000	Optional Pick from drop-down	Optional Max 250 characters	Mandatory Pick from drop-down	Optional Max 250 characters	Mandatory Pick from drop-down	Optional Max 250 characters
Pick a mechanism from; 'Natural exceedance' (of capacity), 'Defence exceedance' (floodwater overtopping defences), 'Failure' (of natural or artificial defences or infrastructure, or of pumping), 'Blockage or restriction' (natural or artificial blockage or	Pick a characteristic from; 'Flash flood' (rises and falls quite rapidly with little or no advance warning), 'Natural flood' (due to significant precipitation, at a slower rate than a flash flood), 'Snow melt flood' (due to rapid snow melt), 'Debris flow'	Were there any significant consequences to human health when the flood occurred, or would there be if it were to re-occur?	Record the number of residential properties where the building structure was affected either internally or externally by the flood, or that would be so affected if the flood were to re-occur.	Where residential or non-residential properties have been counted, it is important to record the method of counting, to aid comparisons between counts. Choose from; 'Detailed GIS' (using property outlines, as per Environment Agency guidance), 'Simple GIS'	If there were other <u>Significant consequences to human health</u> , describe them including information such as the number of critical services flooded.	Were there any significant economic consequences when the flood occurred, or would there be if it were to re-occur?	Record the number of non-residential properties where the building structure was affected either internally or externally by the flood, or that would be so affected if the flood were to re-occur.	Where residential or non-residential properties have been counted, it is important to record the method of counting, to aid comparisons between counts. Choose from; 'Detailed GIS' (using property outlines, as per Environment Agency guidance), 'Simple GIS'	If there were other <u>Significant economic consequences</u> , describe them including information such as the area of agricultural land flooded, length of roads and rail flooded.	Were there any significant consequences to the environment when the flood occurred, or would there be if it were to re-occur?	If there were <u>Significant consequences to the environment</u> , describe them including information such as national and international designated sites flooded, and pollution sources flooded.	Were there any significant consequences to cultural heritage when the flood occurred, or would there be if it were to re-occur?	If there were <u>Significant consequences to cultural heritage</u> , describe them including information such as the number and type of heritage assets flooded.
Natural exceedance	Natural flood	Yes		23 Observed number		No				No		No	
Natural exceedance	Natural flood			500 Observed number		Yes	50+	Observed number		Yes	sewerage in river	No	
Natural exceedance	Natural flood	Yes		200 Observed number	road network closure	Yes	50+	Observed number		Yes	sewerage in river	No	
		yes			road network closure, possible treat to life from rising water level,								



Annex 1 Past floods

Comments	Data owner	Area flooded	Flood event outline confidence	Flood event outline source	Survey date	Photo ID	Lineage	Sensitive data	Protective marking descriptor	European Flood Event Code
Optional Max 1,000 characters	Optional Max 250 characters	Optional Number with two decimal places The total area of the land flooded, in km ²	Optional Pick from drop-down	Optional Pick from drop-down	Optional 'yyyy' or 'yyyy-mm' or 'yyyy-mm-dd'	Optional Max 50 characters	Optional Max 250 characters	Optional Pick from drop-down	Optional Max 50 characters	Auto-populated Max 42 characters
Any additional comments about the past flood record.			Choose from; 'High' (data includes one of: Aerial video, Aerial photos, Professional survey, Flood level information, EA flood data recording staff notes), 'Medium' (data includes one of: EA/LA ground video, EA/LA ground photos, EA/LA flood event outline			Provide references to relevant specific photographs, or to a set of relevant photographs. It may not be practical to reference all relevant photographs for each flood event.	Lineage is how and what the data is made from. Has this data been created by using data owned or derived from data owned by 3rd party (external) organisations? If yes please give details.	Has the information been classified under the Government's Protective Marking Scheme? Include protective marking time limit where known. Note: If "Approved for Access" then report "Unmarked".	For use where organisations apply the Government's Protective Marking Scheme.	This field will autopopulate using the LLFA name provided on the "Instructions" tab, and the Flood ID . It is an EU-wide unique identifier and will be used to report the flood information. Format: UK<ONS Code><P or F><LLFA Flood ID>. "ONS Code" is a uniq
	Epping Forest District Council		Medium	Site survey	1998-04-20		Ordnance Survey AddressPoint; CEH 1:50k River Centreline; NextMap DTM.	Unmarked	Private	UKE10000012P0001
	Environment Agency									UKE09000002P0001
	Environment Agency									UKE09000002P0002





ANNEX 2: Records of future floods and their consequences (preliminary assessment report spreadsheet)											
Field:	Flood ID	Description of assessment method	Name of Location	National Grid Reference	Location Description	Name	Flood modelled	Probability	Main source of flooding	Additional source(s) of flooding	Confidence in main source of flooding
Mandatory / optional: Format:	Mandatory Unique number between 1-9999	Mandatory Max 1,000 characters	Mandatory Max 250 characters	Mandatory 12 characters: 2 letters, 10 numbers	Optional Max 250 characters	Optional Max 250 characters	Optional Max 250 characters	Mandatory Max 25 characters	Mandatory Pick from drop-down	Optional Max 250 characters, same source terms	Optional Pick from drop-down
Notes:	A sequential number starting at 1 and incrementing by 1 for each record.	Description of the future flood information and how it has been produced. Cover Regulation 12(6) requirements of (a) topography, (b) the location of watercourses, (c) the location of flood plains that retain flood water, (d) the characteristics of watercourses, and (e) the effectiveness of any works constructed for the purpose of flood risk management. Information from other relevant fields (<u>Probability</u> , <u>Main source</u> , <u>Name</u>) should be repeated here.	Name of the locality associated with the flood, using recognised postal address names such as streets, towns, counties. If the flood affects the whole LLFA, then record the name of the LLFA.	National Grid Reference of the centroid (centre point, falls within polygon) of the flood extent, or of the area affected if there is no extent information. If the flood affects the whole LLFA, then record the centroid of the LLFA.	A description of the general location that could be flooded.	Name of the model or map product or project which produced the future flood information	Background, or additional information on the probability of the flood modelled - such as whether <u>Probability</u> refers to probability of rainfall or water on the ground.	The chance of the flood occurring in any given year - record X from "a 1 in X chance of occurring in any given year".	Pick the source which generates the majority of flooding. Refer to the PFRA guidance for definitions of sources.	If the flood is generated by, or interacts with, any other sources (other than the <u>Main source of flooding</u>), report the source(s) here, using the same source terms.	Pick a broad level of confidence in the <u>Main source of flooding</u> from; 'High' (compelling evidence of source - about 80% confident that source is correct), 'Medium' (some evidence of source but not compelling - about 50% confident that source is correct) 'Low' (source assumed - about 20% confident that source is correct) or 'Unknown'. High
Example:		1 See records below for examples of description of assessment method.	Essex	SX1234512345		Flood Map for Surface Water - 1 in 200 deep	Probability refers to the probability of the rainfall event, in this case producing flooding of greater than 0.3m depth.	200	Surface runoff		
Records begin here:		1 • Topography is derived from LIDAR (in larger urban areas, on 1, 2 and 3m grids; original accuracy ± 0.15m) and Geoperspective data (original accuracy ± 1.5m), processed to remove buildings and vegetation, then degraded to a composite 5m DTM. Manual edits applied where flow paths clearly omitted e.g. below bridges. • Flow routes dictated by topography; no allowance made for manmade drainage. The DTM may miss flow paths below bridges. • Areas that may flood are defined by dynamically routing a 6.5 hour duration storm with 1 in 200 chance of occurring in any year, over the DTM using JBA's JFLOW–GPU model. • Manning's n of 0.1 is used throughout, to allow broad scale effects of buildings and other obstructions to be approximated. • No allowance made for drainage, pumping or other works constructed for the purpose of flood risk management. • The 'less susceptible' layer shows where modelled flooding is 0.1-0.3m deep; you must not interpret this as depth of flooding, rather as indicative of susceptibility to flooding.	Cheshire East	SJ78856303	Local Authority Area Wide	Areas Susceptible to Surface Water Flooding (AStSWF) - Less	Probability refers to the probability of the rainfall event. This identifies areas which are 'less susceptible' to surface water flooding. For more information refer to "What are Areas Susceptible to Surface Water Flooding" Environment Agency December 2010.		200 Surface runoff		High
		2 • Topography is derived from LIDAR (in larger urban areas, on 1, 2 and 3m grids; original accuracy ± 0.15m) and Geoperspective data (original accuracy ± 1.5m), processed to remove buildings and vegetation, then degraded to a composite 5m DTM. Manual edits applied where flow paths clearly omitted e.g. below bridges. • Flow routes dictated by topography; no allowance made for manmade drainage. The DTM may miss flow paths below bridges. • Areas that may flood are defined by dynamically routing a 6.5 hour duration storm with 1 in 200 chance of occurring in any year, over the DTM using JBA's JFLOW–GPU model. • Manning's n of 0.1 is used throughout, to allow broad scale effects of buildings and other obstructions to be approximated. • No allowance made for drainage, pumping or other works constructed for the purpose of flood risk management. • The 'intermediate susceptibility' layer shows where modelled flooding is 0.3-1.0m deep; you must not interpret this as depth of flooding, rather as indicative of susceptibility to flooding.	Cheshire East	SJ78856303	Local Authority Area Wide	Areas Susceptible to Surface Water Flooding (AStSWF) - Intermediate	Probability refers to the probability of the rainfall event. This identifies areas with 'intermediate susceptibility' to surface water flooding.		200 Surface runoff		High
		3 • Topography is derived from LIDAR (in larger urban areas, on 1, 2 and 3m grids; original accuracy ± 0.15m) and Geoperspective data (original accuracy ± 1.5m), processed to remove buildings and vegetation, then degraded to a composite 5m DTM. Manual edits applied where flow paths clearly omitted e.g. below bridges. • Flow routes dictated by topography; no allowance made for manmade drainage. The DTM may miss flow paths below bridges. • Areas that may flood are defined by dynamically routing a 6.5 hour duration storm with 1 in 200 chance of occurring in any year, over the DTM using JBA's JFLOW–GPU model. • Manning's n of 0.1 is used throughout, to allow broad scale effects of buildings and other obstructions to be approximated. • No allowance made for drainage, pumping or other works constructed for the purpose of flood risk management. • The 'more susceptible' layer shows where modelled flooding is >1.0m deep; you must not interpret this as depth of flooding, rather as indicative of susceptibility to flooding.	Cheshire East	SJ78856303	Local Authority Area Wide	Areas Susceptible to Surface Water Flooding (AStSWF) - More	Probability refers to the probability of the rainfall event. This identifies areas which are 'more susceptible' to surface water flooding.		200 Surface runoff		High

Annex 2 Future floods

4	<div><div>• Topography is derived from 64.5% LIDAR (on 0.25m-2m grids; original accuracy ± 0.15m) and 35.5% NEXTMap SAR (on 5m grid; original accuracy ± 1.0m), processed to remove buildings & vegetation, then combined on a 2m grid; buildings added with an arbitrary height of 5m based on OS MasterMap 2009 building footprints, then resampled to a 5m grid DTM. Manual edits applied where flow paths clearly omitted e.g. below bridges.</div><div>• Flow routes dictated by topography; a uniform allowance of 12mm/hr has been made for manmade drainage in urban areas. Infiltration allowance reduces runoff to 39% in rural areas and 70% in urban areas.</div><div>• Areas that may flood are defined by dynamically routing a 1.1 hour duration storm with 1 in 30 chance of occurring in any year over the DTM using JBA's JFLOW–GPU model.</div><div>• Manning's n of 0.1 in rural areas; 0.03 in urban areas, to reflect explicit modelling of buildings in urban areas.</div></div>	Cheshire East	SJ78856303	Local Authority Area Wide	Flood Map for Surface Water (FMfSW) - 1 in 30	Probability refers to the probability of the rainfall event, in this case producing flooding of greater than 0.1m depth.		30 Surface runoff	High
5	<div><div>• No allowance made for local variations in drainage, pumping or other works constructed</div><div>• Topography is derived from 64.5% LIDAR (on 0.25m-2m grids; original accuracy ± 0.15m) and 35.5% NEXTMap SAR (on 5m grid; original accuracy ± 1.0m), processed to remove buildings & vegetation, then combined on a 2m grid; buildings added with an arbitrary height of 5m based on OS MasterMap 2009 building footprints, then resampled to a 5m grid DTM. Manual edits applied where flow paths clearly omitted e.g. below bridges.</div><div>• Flow routes dictated by topography; a uniform allowance of 12mm/hr has been made for manmade drainage in urban areas. Infiltration allowance reduces runoff to 39% in rural areas and 70% in urban areas.</div><div>• Areas that may flood are defined by dynamically routing a 1.1 hour duration storm with 1 in 30 chance of occurring in any year over the DTM using JBA's JFLOW–GPU model.</div><div>• Manning's n of 0.1 in rural areas; 0.03 in urban areas, to reflect explicit modelling of buildings in urban areas.</div></div>	Cheshire East	SJ78856303	Local Authority Area Wide	Flood Map for Surface Water (FMfSW) - 1 in 30 deep	Probability refers to the probability of the rainfall event, in this case producing flooding of greater than 0.3m depth.		30 Surface runoff	High
6	<div><div>• No allowance made for local variations in drainage, pumping or other works constructed</div><div>• Topography is derived from 64.5% LIDAR (on 0.25m-2m grids; original accuracy ± 0.15m) and 35.5% NEXTMap SAR (on 5m grid; original accuracy ± 1.0m), processed to remove buildings & vegetation, then combined on a 2m grid; buildings added with an arbitrary height of 5m based on OS MasterMap 2009 building footprints, then resampled to a 5m grid DTM. Manual edits applied where flow paths clearly omitted e.g. below bridges.</div><div>• Flow routes dictated by topography; a uniform allowance of 12mm/hr has been made for manmade drainage in urban areas. Infiltration allowance reduces runoff to 39% in rural areas and 70% in urban areas.</div><div>• Areas that may flood are defined by dynamically routing a 1.1 hour duration storm with 1 in 200 chance of occurring in any year over the DTM using JBA's JFLOW–GPU model.</div><div>• Manning's n of 0.1 in rural areas; 0.03 in urban areas, to reflect explicit modelling of buildings in urban areas.</div></div>	Cheshire East	SJ78856303	Local Authority Area Wide	Flood Map for Surface Water (FMfSW) - 1 in 200	Probability refers to the probability of the rainfall event, in this case producing flooding of greater than 0.1m depth.		200 Surface runoff	High
7	<div><div>• No allowance made for local variations in drainage, pumping or other works constructed</div><div>• Topography is derived from 64.5% LIDAR (on 0.25m-2m grids; original accuracy ± 0.15m) and 35.5% NEXTMap SAR (on 5m grid; original accuracy ± 1.0m), processed to remove buildings & vegetation, then combined on a 2m grid; buildings added with an arbitrary height of 5m based on OS MasterMap 2009 building footprints, then resampled to a 5m grid DTM. Manual edits applied where flow paths clearly omitted e.g. below bridges.</div><div>• Flow routes dictated by topography; a uniform allowance of 12mm/hr has been made for manmade drainage in urban areas. Infiltration allowance reduces runoff to 39% in rural areas and 70% in urban areas.</div><div>• Areas that may flood are defined by dynamically routing a 1.1 hour duration storm with 1 in 200 chance of occurring in any year over the DTM using JBA's JFLOW–GPU model.</div><div>• Manning's n of 0.1 in rural areas; 0.03 in urban areas, to reflect explicit modelling of buildings in urban areas.</div></div>	Cheshire East	SJ78856303	Local Authority Area Wide	Flood Map for Surface Water (FMfSW) - 1 in 200 deep	Probability refers to the probability of the rainfall event, in this case producing flooding of greater than 0.3m depth.		200 Surface runoff	High
8	<div><div>• No allowance made for local variations in drainage, pumping or other works constructed</div><div>• Areas Susceptible to Groundwater Flooding (AStGWF) is a strategic scale map showing groundwater flood areas on a 1km square grid</div><div>• This data has used the top two susceptibility bands of the British Geological Society (BGS) 1:50,000 Groundwater Flood Susceptibility Map, which was developed on a 50m grid from:</div><div>• NEXTMap 5m grid DTM.</div><div>• National Groundwater Level data on a 50m grid</div><div>• BGS 1:50 000 geological mapping, with classifications of permeability</div><div>• It covers consolidated aquifers (chalk, limestone, sandstone etc.) and superficial deposits.</div><div>• Flood plains are not explicitly identified; the mapping identifies where groundwater is likely to emerge, and not where the water is subsequently likely to flow or pond.</div><div>• No allowance is made for engineering works, or for groundwater rebound or abstraction to prevent groundwater rebound.</div><div>• Shows the proportion of each 1km grid square which is susceptible to groundwater</div></div>	Cheshire East	SJ78856303	Local Authority Area Wide	Areas Susceptible to Groundwater Flooding (AStGWF)	Does not describe a probability, but shows places where groundwater emergence more likely to occur.	Unknown	Groundwater	High

Annex 2 Future floods

9	<div>• Modelling developed from combination of national (2004) and local (generally 1998-2010) modelling. • Topography derived from LIDAR (on 0.25m-2m grids; original accuracy ± 0.15m), NEXTMap SAR (on 5m grid; original accuracy ± 1.0m), processed to remove buildings & vegetation. For local modelling, topography may include ground survey. • Location of watercourses and tidal flow routes dictated by topographic survey. • Areas that may flood are defined for catchments >3km² by routing appropriate flows for that catchment through the model to ascertain water level and thus depth and extent. • Manning's n of 0.1 used for national fluvial modelling; variable (calibrated) values for national tidal modelling; appropriate values selected for local modelling. Channel capacity assumed as QMED for national fluvial modelling; local survey methods used for local modelling. • For the purpose of flood risk management, models assume that there are no raised defences</div>	Cheshire East	SJ78856303	Local Authority Area Wide	Flood Map (for rivers and sea) - flood zone 3	Fluvial 1 in 100, tidal 1 in 200	100 Main rivers	Sea, ordinary watercourses	Medium
10	<div>• Modelling developed from combination of national (2004) and local (generally 2004-2010) modelling. • Topography derived from LIDAR (on 0.25m-2m grids; original accuracy ± 0.15m), NEXTMap SAR (on 5m grid; original accuracy ± 1.0m), processed to remove buildings & vegetation. For local modelling, topography may include ground survey. • Location of watercourses and tidal flow routes dictated by topographic survey. • Areas that may flood are defined for catchments >3km² by routing appropriate flows for that catchment through the model to ascertain water level and thus depth and extent. • Manning's n of 0.1 used for national fluvial modelling; variable (calibrated) values for national tidal modelling; appropriate values selected for local modelling. Channel capacity assumed as QMED for national fluvial modelling; local survey methods used for local modelling. • For the purpose of flood risk management, models assume that there are no raised defences</div>	Cheshire East	SJ78856303	Local Authority Area Wide	Flood Map (for rivers and sea) - flood zone 2	Extreme flood outline is 1 in 1000, and includes some historic where judged that this gives an indication of areas at risk of future flooding.	1000 Main rivers	Sea, ordinary watercourses	Medium
11	Defra Groundwater Emergence Zones; indicate likely areas of groundwater emergence derived from historic instances and analysis of existing groundwater bodies and geology.	Cheshire East	SJ78856303	Local Authority Area Wide	Groundwater Emergence Zones	N/A	1-100	Groundwater	

Main mechanism of flooding	Main characteristic of flooding	Significant consequences to human health	Human health consequences - residential properties	Property count method	Other human health consequences	Significant economic consequences	Number of non-residential properties flooded	Property count method	Other economic consequences	Significant consequences to the environment	Environment consequences	Significant consequences to cultural heritage	Cultural heritage consequences
Mandatory Pick from drop-down	Mandatory Pick from drop-down	Mandatory Pick from drop-down	Optional Number between 1-10,000,000	Optional Pick from drop-down	Optional Max 250 characters	Mandatory Pick from drop-down	Optional Number between 1-10,000,000	Optional Pick from drop-down	Optional Max 250 characters	Mandatory Pick from drop-down	Optional Max 250 characters	Mandatory Pick from drop-down	Optional Max 250 characters
Pick a mechanism from; 'Natural exceedance' (of capacity), 'Defence exceedance' (floodwater overtopping defences), 'Failure' (of natural or artificial defences or infrastructure, or of pumping), 'Blockage or restriction' (natural or artificial blockage or restriction of a conveyance channel or system), or 'No data'. Natural exceedance	Pick a characteristic from; 'Flash flood' (rises and falls quite rapidly with little or no advance warning), 'Natural flood' (due to significant precipitation, at a slower rate than a flash flood), 'Snow melt flood' (due to rapid snow melt), 'Debris flow' (conveying a high degree of debris), or 'No data'. Most UK floods are 'Natural floods'. Natural flood	Would there be any significant consequences to human health if the future flood were to occur?	Record the number of residential properties where the building structure would be affected either internally or externally if the flood were to occur.	Where residential or non-residential properties have been counted, it is important to record the method of counting, to aid comparisons between counts. Choose from; 'Detailed GIS' (using property outlines, as per Environment Agency guidance), 'Simple GIS' (using property points), 'Estimate from map', or 'Observed number'.	If there would be other <u>Significant consequences to human health</u> , describe them including information such as the number of critical services flooded.	Would there be any significant economic consequences if the future flood were to occur?	Record the number of non-residential properties where the building structure would be affected either internally or externally if the flood were to occur.	Where residential or non-residential properties have been counted, it is important to record the method of counting, to aid comparisons between counts. Choose from; 'Detailed GIS' (using property outlines, as per Environment Agency guidance), 'Simple GIS' (using property points), 'Estimate from map', or 'Observed number'.	If there would be other <u>Significant economic consequences</u> , describe them including information such as the area of agricultural land flooded, length of roads and rail flooded.	Would there be any significant consequences to the environment if the future flood were to occur?	If there would be <u>Significant consequences to the environment</u> , describe them including information such as national and international designated sites flooded, and pollution sources flooded.	Would there be any significant consequences to cultural heritage if the future flood were to occur?	If there would be <u>Significant consequences to cultural heritage</u> , describe them including information such as the number and type of heritage assets flooded.
Natural exceedance	Natural flood	Yes	12000	Detailed GIS		No				No		No	
Natural exceedance	Natural flood	Yes	10200			Yes	3700			No		No	
Natural exceedance	Natural flood	Yes	1231			Yes	645			No		No	

Annex 2 Future floods

Natural exceedance	Natural flood	Yes		Yes		No	No
Natural exceedance	Natural flood	Yes		Yes		No	No
Natural exceedance	Natural flood	Yes	27200	Yes	9200	No	No
Natural exceedance	Natural flood	Yes	6400	Yes	2800	No	No
Natural exceedance	Natural flood	Yes		Yes		No	No

Natural exceedance	Natural flood	Yes		Yes		No	No
Natural exceedance	Natural flood	Yes		Yes		No	No
Natural exceedance	Natural flood	Yes		Yes		No	No



Annex 2 Future floods

Comments	Data owner	Area flooded	Confidence in modelled outline	Model date	Model Type	Hydrology Type	Lineage	Sensitive data	Protective marking descriptor	European Flood Event Code
Optional Max 1,000 characters	Optional Max 250 characters	Optional Number with two decimal places The total area of the land flooded, in km ²	Optional Pick from drop-down	Optional 'yyyy' or 'yyyy-mm' or 'yyyy-mm-dd'	Optional Max 250 characters	Optional Max 250 characters	Optional Max 250 characters	Optional Pick from drop-down	Optional Max 50 characters	Auto-populated Max 42 characters
Any additional comments about the future flood record.			Pick a broad level of confidence in the modelled flood outline from; 'High' (good match to past flood extents - about 80% confident that outline is correct), 'Medium' (reasonable match - about 50% confident that outline is correct), 'Low' (poor match, sparse data - about 20% confident that outline is correct) or 'Unknown'.		Type of software used to create future flood information.	Type of hydrology method used to create future flood information.	Lineage is how and what the data is made from. Has this data been created by using data owned or derived from data owned by 3rd party (external) organisations? If yes please give details.	Has the information been classified under the Government's Protective Marking Scheme? Include protective marking time limit where known. Note: If "Approved for Access" then report "Unmarked".	For use where organisations apply the Government's Protective Marking Scheme.	This field will autopopulate using the LLFA name provided on the "Instructions" tab, and the <u>Flood ID</u> . It is an EU-wide unique identifier and will be used to report the flood information. Format: UK<ONS Code><P or F><LLFA Flood ID>. "ONS Code" is a unique reference for each LLFA. "P or F" indicates if the event is past or future. "LLFA Flood ID" is a sequential number beginning with 0001.
	Epping Forest District Council		Medium-Low	2008-08	2D-TuFlow	FEH (Revised Rainfall Runoff)	Ordnance Survey AddressPoint; CEH 1:50k River Centreline; NextMap DTM.	Unmarked	Private	UKE10000012F0001
	JBA Consulting (distributed by Environment Agency under licence)		Low	2009-07	JFLOW-GPU	Depth-duration-frequency curves derived from FEH CD-ROM, from centre of each 5km model, with areal reduction factor applied to convert point rainfall estimate to more representative figure. Curve then used to derive 6.5 hr, 1:200 chance rainfall depth; this is converted to hyetograph, using summer rainfall profile.		Protect	Commercial	UKE06000049F0001
	JBA Consulting (distributed by Environment Agency under licence)		Low	2009-07	JFLOW-GPU	Depth-duration-frequency curves derived from FEH CD-ROM, from centre of each 5km model, with areal reduction factor applied to convert point rainfall estimate to more representative figure. Curve then used to derive 6.5 hr, 1:200 chance rainfall depth; this is converted to hyetograph, using summer rainfall profile.		Protect	Commercial	UKE06000049F0002
	JBA Consulting (distributed by Environment Agency under licence)		Low	2009-07	JFLOW-GPU	Depth-duration-frequency curves derived from FEH CD-ROM, from centre of each 5km model, with areal reduction factor applied to convert point rainfall estimate to more representative figure. Curve then used to derive 6.5 hr, 1:200 chance rainfall depth; this is converted to hyetograph, using summer rainfall profile.		Protect	Commercial	UKE06000049F0003

Annex 2 Future floods

	Environment Agency	Medium-Low	2010-11	JFLOW-GPU	Depth-duration-frequency curves derived from FEH CD-ROM, from centre of each 5km model, with areal reduction factor applied to convert point rainfall estimate to more representative figure. Curve then used to derive 1.1 hr, 1:30 chance rainfall depth; this is converted to hyetograph, using summer rainfall profile. See " Description of assessment method " for allowances for infiltration and drainage.	Rainfall Hyetograph, EA 2m Composite DTM, OSMM Topography	Unmarked	UKE06000049F0004
	Environment Agency	Medium-Low	2010-11	JFLOW-GPU	Depth-duration-frequency curves derived from FEH CD-ROM, from centre of each 5km model, with areal reduction factor applied to convert point rainfall estimate to more representative figure. Curve then used to derive 1.1 hr, 1:30 chance rainfall depth; this is converted to hyetograph, using summer rainfall profile. See " Description of assessment method " for allowances for infiltration and drainage.	Rainfall Hyetograph, EA 2m Composite DTM, OSMM Topography	Unmarked	UKE06000049F0005
	Environment Agency	Medium-Low	2010-11	JFLOW-GPU	Depth-duration-frequency curves derived from FEH CD-ROM, from centre of each 5km model, with areal reduction factor applied to convert point rainfall estimate to more representative figure. Curve then used to derive 1.1 hr, 1:200 chance rainfall depth; this is converted to hyetograph, using summer rainfall profile. See " Description of assessment method " for allowances for infiltration and drainage.	Rainfall Hyetograph, EA 2m Composite DTM, OSMM Topography	Unmarked	UKE06000049F0006
	Environment Agency	Medium-Low	2010-11	JFLOW-GPU	Depth-duration-frequency curves derived from FEH CD-ROM, from centre of each 5km model, with areal reduction factor applied to convert point rainfall estimate to more representative figure. Curve then used to derive 1.1 hr, 1:200 chance rainfall depth; this is converted to hyetograph, using summer rainfall profile. See " Description of assessment method " for allowances for infiltration and drainage.	Rainfall Hyetograph, EA 2m Composite DTM, OSMM Topography	Unmarked	UKE06000049F0007
Data developed specifically for PFRA, and is unlikely to be suitable for any other purposes.	Environment Agency	Low	2010-11	ArcGIS	Uses data which is developed from published BGS groundwater level contours, groundwater levels in BGS WellMaster database and some river levels. No probability is associated with this data.	British Geological Society (BGS) DiGMapGB-50 [Susceptibility to Groundwater Flooding].	Unmarked	UKE06000049F0008

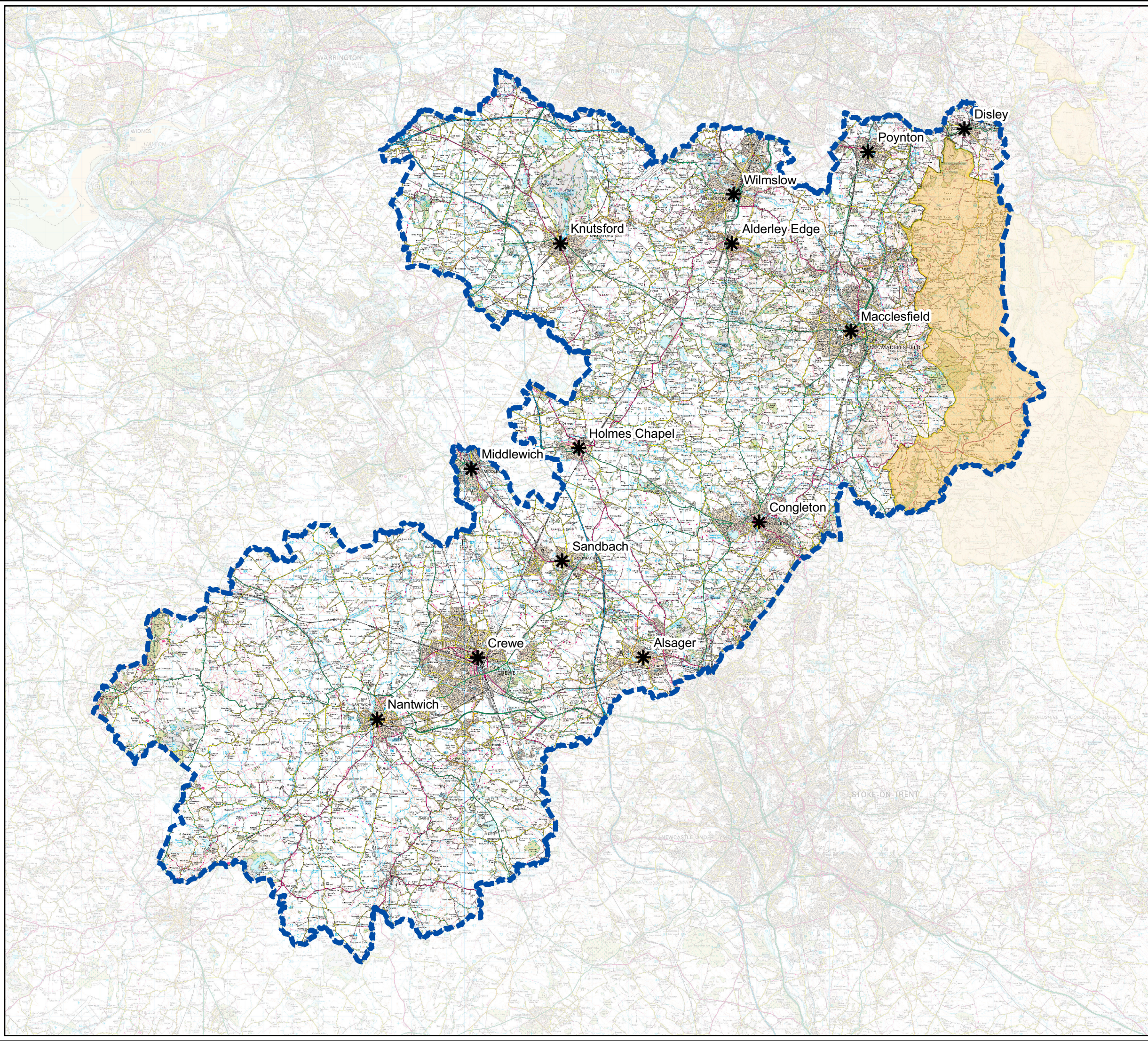
Annex 2 Future floods

Data updated quarterly. To understand the likelihood of future flooding, taking account of defences, refer to Areas Benefitting from Defences and National Flood Risk Assessment (NaFRA) data. Marked 'Protect' for complete national dataset only.	Environment Agency	Medium	2010-11	Varies but mainly JFLOW, ISIS, HEC-RAS, TUFLOW for fluvial, and HYDROF for tidal.	National methodology described in "National Generalised Modelling for Flood Zones - Fluvial & Tidal Modelling Methods - Methodology, Strengths and Limitations". A national dataset (for England and Wales) of fluvial flood peak estimates was derived from the Flood Estimation Handbook (FEH) to generate a 1 in 100 chance fluvial flood. Local fluvial modelling uses FEH methods. Peak tidal water levels from either Dixon & Tawn (DT3) or local data sets to derive 1 in 200 chance tide levels including surge from POL CSX model.	NextMap SAR DTMe, UKHO Admiralty Charts, 1:50K CEH River Centre Line, CEH FEH Q(T) Grids, POL CSX Peak Extreme Water Levels, POL CS3 Astronomical Tides, UKHO Admiralty Tide Time-Series Calibration Locations, OS 1:10 Boundary Line MHW.	Protect	Commercial	UKE06000049F0009
Data updated quarterly. To understand the likelihood of future flooding, taking account of defences, refer to National Flood Risk Assessment (NaFRA) data. Marked 'Protect' for complete national dataset only.	Environment Agency	Medium	2010-11	Varies but mainly JFLOW, ISIS, HEC-RAS, TUFLOW for fluvial, and HYDROF for tidal.	National methodology described in "National Generalised Modelling for Flood Zones - Fluvial & Tidal Modelling Methods - Methodology, Strengths and Limitations". A national dataset (for England and Wales) of fluvial flood peak estimates was derived from the Flood Estimation Handbook (FEH) to generate a 1 in 1000 chance fluvial flood. Local fluvial modelling uses FEH methods. Peak tidal water levels from either Dixon & Tawn (DT3) or local data sets to derive 1 in 1000 chance tide levels including surge from POL CSX model.	NextMap SAR DTMe, UKHO Admiralty Charts, 1:50K CEH River Centre Line, CEH FEH Q(T) Grids, POL CSX Peak Extreme Water Levels, POL CS3 Astronomical Tides, UKHO Admiralty Tide Time-Series Calibration Locations, OS 1:10 Boundary Line MHW. Historic	Protect	Commercial	UKE06000049F0010
									UKE06000049F0011




ANNEX 3: Records of Flood Risk Areas and their rationale (preliminary assessment report spreadsheet)								
Field:	Flood Risk Area ID	Name of Flood Risk Area	National Grid Reference	Main source of flooding	Additional source(s) of flooding	Confidence in main source of flooding	Main mechanism of flooding	Main characteristic of flooding
Mandatory / optional:	Mandatory	Mandatory	Mandatory	Mandatory	Optional	Optional	Mandatory	Mandatory
Format:	Unique number between 1-9999	Max 250 characters	12 characters: 2 letters, 10 numbers	Pick from drop-down	Max 250 characters, same source terms	Pick from drop-down	Pick from drop-down	Pick from drop-down
Notes:	A sequential number starting at 1 and incrementing by 1 for each record.	Name of the locality associated with the Flood Risk Area; a town, city, or county.	National Grid Reference of the centroid (centre point, falls within polygon) of the Flood Risk Area.	Pick the source from which there is a significant flood risk. Refer to the PFRA guidance for definitions of sources.	If there is also significant flood risk generated by another source (other than the <u>Main source of flooding</u>), report the source(s) here, using the same source terms.	Pick a broad level of confidence in the <u>Main source of flooding</u> from; 'High' (compelling evidence of source - about 80% confident that source is correct), 'Medium' (some evidence of source but not compelling - about 50% confident that source is correct) 'Low' (source assumed - about 20% confident that source is correct) or 'Unknown'. High	Pick a mechanism from; 'Natural exceedance' (of capacity), 'Defence exceedance' (floodwater overtopping defences), 'Failure' (of natural or artificial defences or infrastructure, or of pumping), 'Blockage or restriction' (natural or artificial blockage or restriction of a conveyance channel or system), or 'No data'.	Pick a characteristic from; 'Flash flood' (rises and falls quite rapidly with little or no advance warning), 'Natural flood' (due to significant precipitation, at a slower rate than a flash flood), 'Snow melt flood' (due to rapid snow melt), 'Debris flow' (conveying a high degree of debris), or 'No data'. Most UK floods are 'Natural floods'.
Example:	1	London	SX1234512345	Surface runoff	NA		Natural exceedance	Natural flood
Records begin here:								

Significant consequences to human health	Human health consequences - residential properties	Property count method	Other human health consequences	Significant economic consequences	Number of non-residential properties flooded	Property count method	Other economic consequences	Significant consequences to the environment	Environment consequences	Significant consequences to cultural heritage	Cultural heritage consequences
Mandatory	Optional	Optional	Optional	Mandatory	Optional	Optional	Optional	Mandatory	Optional	Mandatory	Optional
Pick from drop-down	Number between 1-10,000,000	Pick from drop-down	Max 250 characters	Pick from drop-down	Number between 1-10,000,000	Pick from drop-down	Max 250 characters	Pick from drop-down	Max 250 characters	Pick from drop-down	Max 250 characters
Has the Flood Risk Area been identified as a result of significant consequences to human health?	Record the number of residential properties where the building structure would be affected either internally or externally by the flood.	Where residential or non-residential properties have been counted, it is important to record the method of counting, to aid comparisons between counts. Choose from; 'Detailed GIS' (using property outlines, as per Environment Agency guidance), 'Simple GIS' (using property points), 'Estimate from map', or 'Observed number'.	If the Flood Risk Area has been identified as a result of other <u>Significant consequences to human health</u> , describe them (such as information about the number of critical services flooded).	Has the Flood Risk Area been identified as a result of significant economic consequences?	Record the number of non-residential properties where the building structure would be affected either internally or externally by the flood.	Where residential or non-residential properties have been counted, it is important to record the method of counting, to aid comparisons between counts. Choose from; 'Detailed GIS' (using property outlines, as per Environment Agency guidance), 'Simple GIS' (using property points), 'Estimate from map', or 'Observed number'.	If the Flood Risk Area has been identified as a result of other <u>Significant economic consequences</u> , describe them (such as information about the area of agricultural land flooded, length of roads and rail flooded).	Has the Flood Risk Area been identified as a result of significant consequences to the environment?	If the Flood Risk Area has been identified as a result of <u>Significant consequences to the environment</u> , describe them (such as information about national and international designated sites flooded, and pollution sources flooded).	Has the Flood Risk Area been identified as a result of significant consequences to cultural heritage?	If the Flood Risk Area has been identified as a result of <u>Significant consequences to cultural heritage</u> , describe them (such as information about the number and type of heritage assets flooded).
Yes	50000	Detailed GIS		No				No		No	


Origin of Flood Risk Area	Amended Flood Risk Area rationale	New Flood Risk Area rationale	Rationale detail	European Flood Risk Area Code
Mandatory Pick from drop-down	Mandatory Pick from drop-down	Mandatory Pick from drop-down	Mandatory Max 1,000 characters	Auto-populated Max 42 characters
Pick the origin from either; 'Indicative' Flood Risk Area, 'Amended' Flood Risk Area (in which case <u>Amended Flood Risk Area rationale</u> is mandatory), or 'New' Flood Risk Area (in which case <u>New Flood Risk Area rationale</u> is mandatory).	Pick the main rationale from either; 'Geography', 'Past floods', or 'Future floods'. Then provide further detail in <u>Rationale detail</u> . This is not mandatory if the Flood Risk Area was an indicative Flood Risk Area and has not been amended, or is a new Flood Risk Area.	Pick the main rationale from either 'Past floods', or 'Future floods'. Then provide further detail in <u>Rationale detail</u> . This is not mandatory if the Flood Risk Area was an indicative Flood Risk Area.	Summarise the rationale for amending an indicative Flood Risk Area, or identifying a new Flood Risk Area. Refer to Defra & WAG guidance to LLFAs on "Selecting and reviewing Flood Risk Areas for local sources of flooding". If the Flood Risk Area was an indicative Flood Risk Area and has not been amended, record "indicative Flood Risk Area".	<p>This field will autopopulate using the LLFA name provided on the "Instructions" tab, and the <u>Flood Risk Area ID</u>. It is an EU-wide unique identifier and will be used to report the Flood Risk Area information.</p> <p>Format: UK<ONS Code><A><LLFA Flood ID>. "ONS Code" is a unique reference for each LLFA. "A" indicates it is a Flood Risk Area. "LLFA Flood ID" is a sequential number beginning with 0001.</p>
Indicative	NA	NA	indicative Flood Risk Area	UKE10000012A0001



Legend

-  Cheshire East Boundary
-  Urban Area
-  National Park

Notes:



N

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:195,000

0 2.5 5
Kilometers

Office:



Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Project:

**Cheshire East
Preliminary Flood Risk Assessment**

Drawing Title:

**Figure 1 - Cheshire East
Boundary & PFRA Study Area**





Revision Information					
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping

Drawing Number:


PFRA/CE/Fig1/Boundary

This page is intentionally left blank

Legend

-  Cheshire East Boundary
-  Local Flooding Incidents from Cheshire East Council Internal Consultation
-  Local Flooding Incidents from Congleton SFRA
-  Local Flooding Incidents from Crewe SFRA

Notes:
'Surface water' includes flooding from runoff, groundwater and SFRA data may include ordinary watercourses. Where flooding from ordinary watercourses has been specified this is not displayed on this map but is instead included on Figure 3.



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:195,000

0 2.5 5
Kilometers

Office:



Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Project:

**Cheshire East
Preliminary Flood Risk Assessment**

Drawing Title:

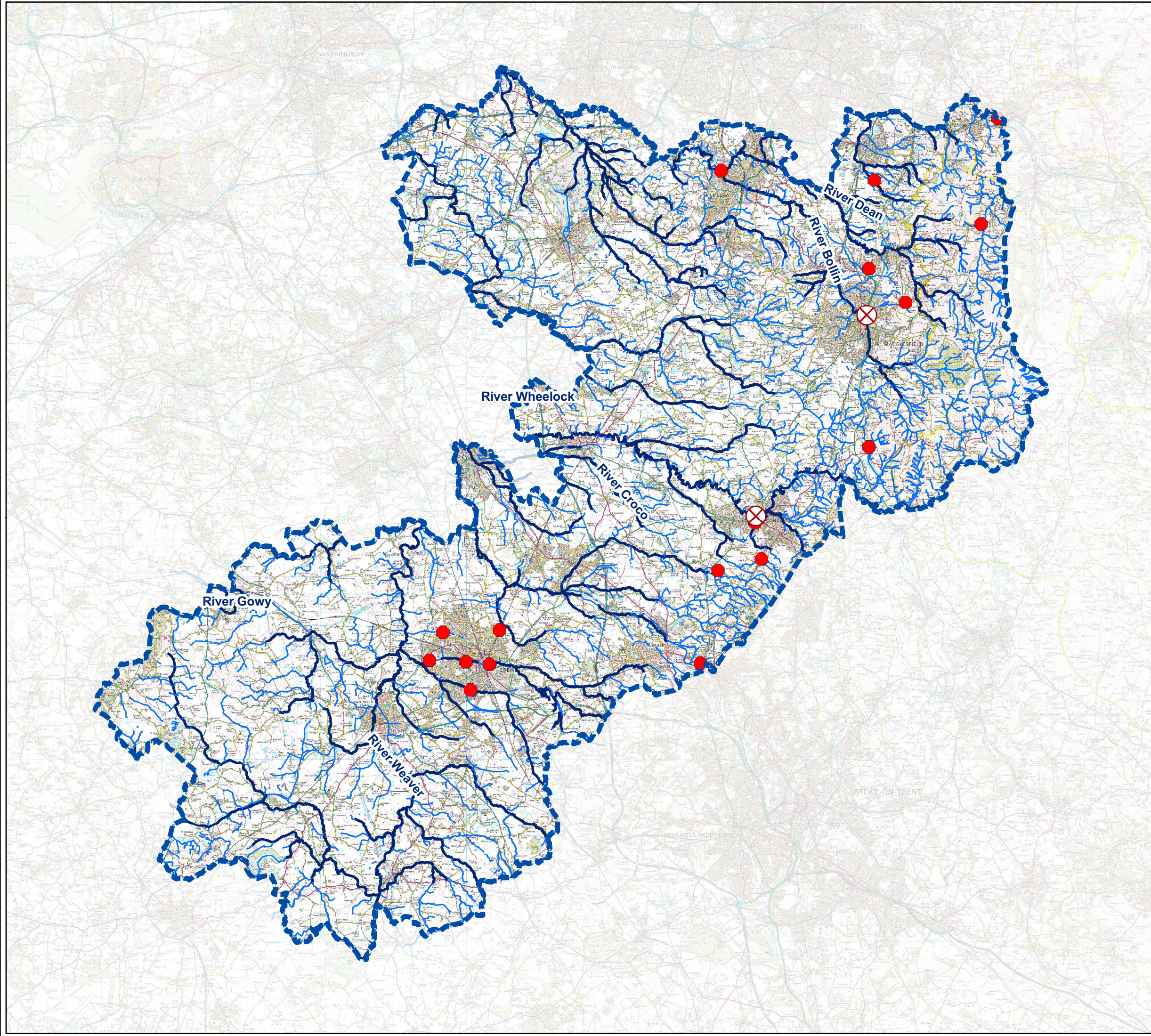
**Figure 2 - Historic
Surface Water Flooding Incidents**

Revision Information					
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping


Drawing Number:


PFRA/CE/Fig2/HistSWFlooding

This page is intentionally left blank




Legend

Cheshire East Boundary





Significant Historic Flooding Incidents



Historic Flooding Incidents

Watercourses


Environment Agency Main River

Ordinary Watercourse

Notes:

Fluvial flooding incidents have been classified as those occurring from Environment Agency Main Rivers.


Significant floods are those affecting more than 80 properties.

N


This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:195,000

02.55


Kilometers

Office:

**JACOBS**TM

Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:

Cheshire East
Council

Project:

Cheshire East
Preliminary Flood Risk Assessment

Drawing Title:

Figure 3 - Historic
Fluvial & Tidal Flooding Incidents

Revision Information

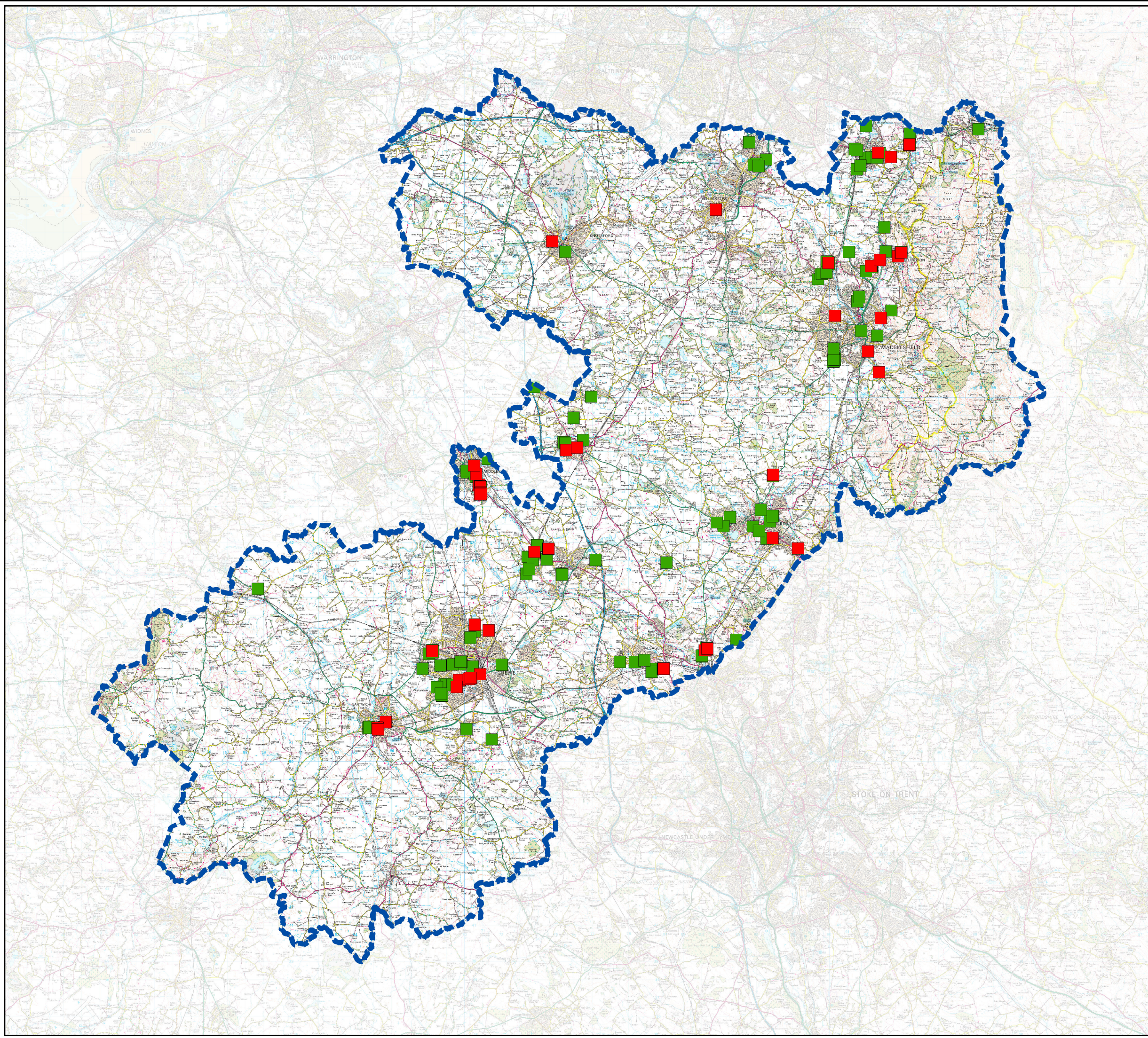
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping

Drawing Number:




PFRA/CE/Fig3/FluvTid

Page 87


This page is intentionally left blank



Legend

-  Cheshire East Boundary
-  United Utilities DG5 Records (Internal)
-  United Utilities DG5 Records (External)

Notes:



N

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)
© UU copyright and/or database right 2011.

Scale @ A3:
1:195,000

02.55

Kilometers

Office:



Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Project:

**Cheshire East
Preliminary Flood Risk Assessment**

Drawing Title:

**Figure 4 - Historic
Sewer Flooding Incidents**








Revision Information					
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping

Drawing Number:


PFRA/CE/Fig4/Sewers

This page is intentionally left blank

Legend

-  Cheshire East Boundary
-  Historic Canal Breaching Incident
-  Historic Canal Overtopping Incident
-  Canal
-  Canal Sluice
-  Canal Weir
-  Canal Lock

Notes:



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:195,000

02.55

Kilometers

Office:


Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Project:

**Cheshire East
Preliminary Flood Risk Assessment**

Drawing Title:

**Figure 5 - Historic
Canal Flooding Incidents**


Revision Information					
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping

Drawing Number:


PFRA/CE/Fig5/Canal

This page is intentionally left blank

Legend

 Cheshire East Boundary

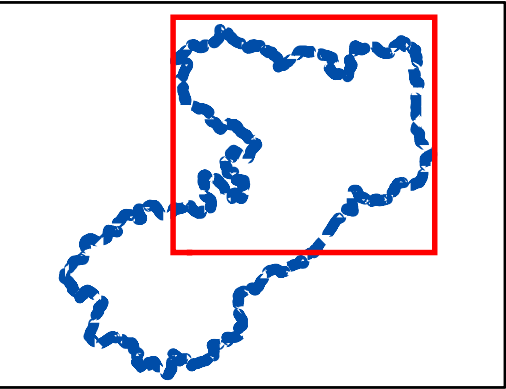
Flood Map for Surface Water 0.5% Probability Flood Event


 Deep Flooding (>0.3m)

 Shallow Flooding (>0.1m)

Notes:

This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.





N

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Page 93

Scale @ A3:
1:115,000

024

Kilometers

Office:



JACOBS
Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Cheshire East Council

Project:

**Cheshire East
Preliminary Flood Risk Assessment**

Drawing Title:

**Figure 6a - Future Flooding
Flood Map for Surface Water
Cheshire East North**


Revision Information					
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping

Drawing Number:


PFRA/CE/Fig6/FMfSW200yr/CENorth

This page is intentionally left blank

Legend

 Cheshire East Boundary

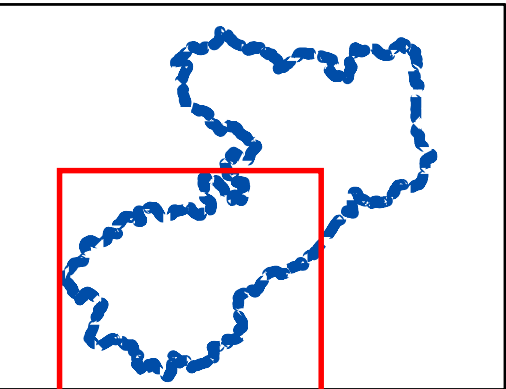
Flood Map for Surface Water 0.5% Probability Flood Event


 Deep Flooding (>0.3m)

 Shallow Flooding (>0.1m)

Notes:

This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.





This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:115,000

0 2 4
Kilometers

Office:



Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Project:

**Cheshire East
Preliminary Flood Risk Assessment**

Drawing Title:

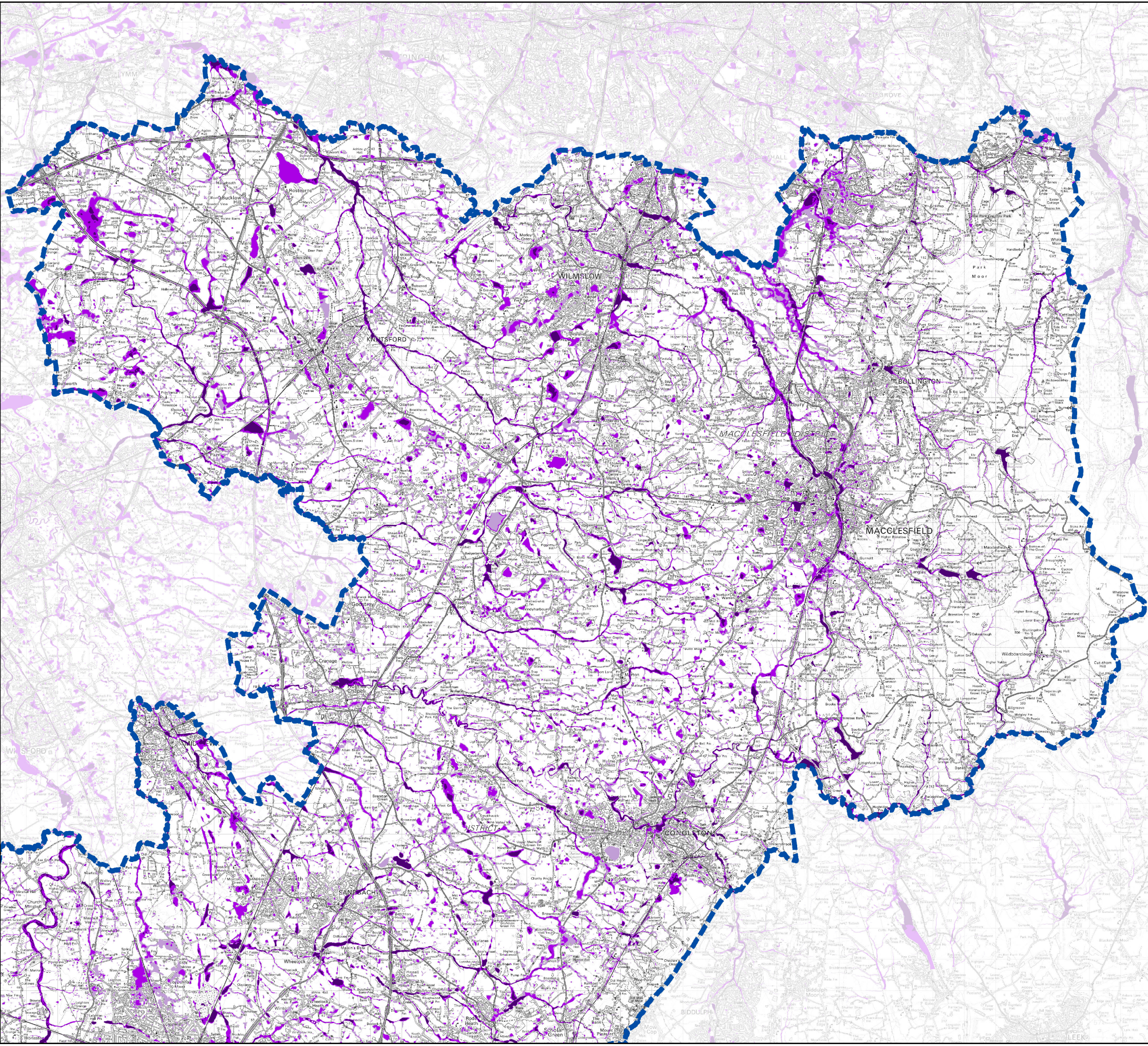
**Figure 6b - Future Flooding
Flood Map for Surface Water
Cheshire East South**

Revision Information					
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping


Drawing Number:

PFRA/CE/Fig6/FMfSW200yr/CESouth


This page is intentionally left blank




Legend

 Cheshire East Boundary

Areas Susceptible to Surface Water Flooding

-  More Risk
-  Intermediate Risk
-  Less Risk

Notes:
The ASISWF map gives an indication of the broad areas likely to be susceptible to surface water flooding, excluding building and drainage information. It is not suitable for use at an individual property scale due to the method used.
The data is the intellectual property of Jeremy Benn Associates Ltd and we are prohibited from making any commercial use, or permitting any commercial use by third parties.
Please contact Jeremy Benn Associates Ltd (info@jbaconsulting.co.uk) if you need a licence.



N

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:115,000

0 2 4
Kilometers

Office:



Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Project:

**Cheshire East
Preliminary Flood Risk Assessment**

Drawing Title:

Figure 7a - Future Flooding
Areas Susceptible to Surface Water Flooding
Cheshire East North


Revision Information					
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping

Drawing Number:




PFRA/CE/Fig7/AStSWF/CENorth

This page is intentionally left blank


Legend

 Cheshire East Boundary

Areas Susceptible to Surface Water Flooding

-  More Risk
-  Intermediate Risk
-  Less Risk

Notes:
The ASISWF map gives an indication of the broad areas likely to be susceptible to surface water flooding, excluding building and drainage information. It is not suitable for use at an individual property scale due to the method used.
The data is the intellectual property of Jeremy Benn Associates Ltd and we are prohibited from making any commercial use, or permitting any commercial use by third parties.
Please contact Jeremy Benn Associates Ltd (info@jbaconsulting.co.uk) if you need a licence.



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:115,000

0 2 4
Kilometers

Office:



Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Project:

Cheshire East
Preliminary Flood Risk Assessment

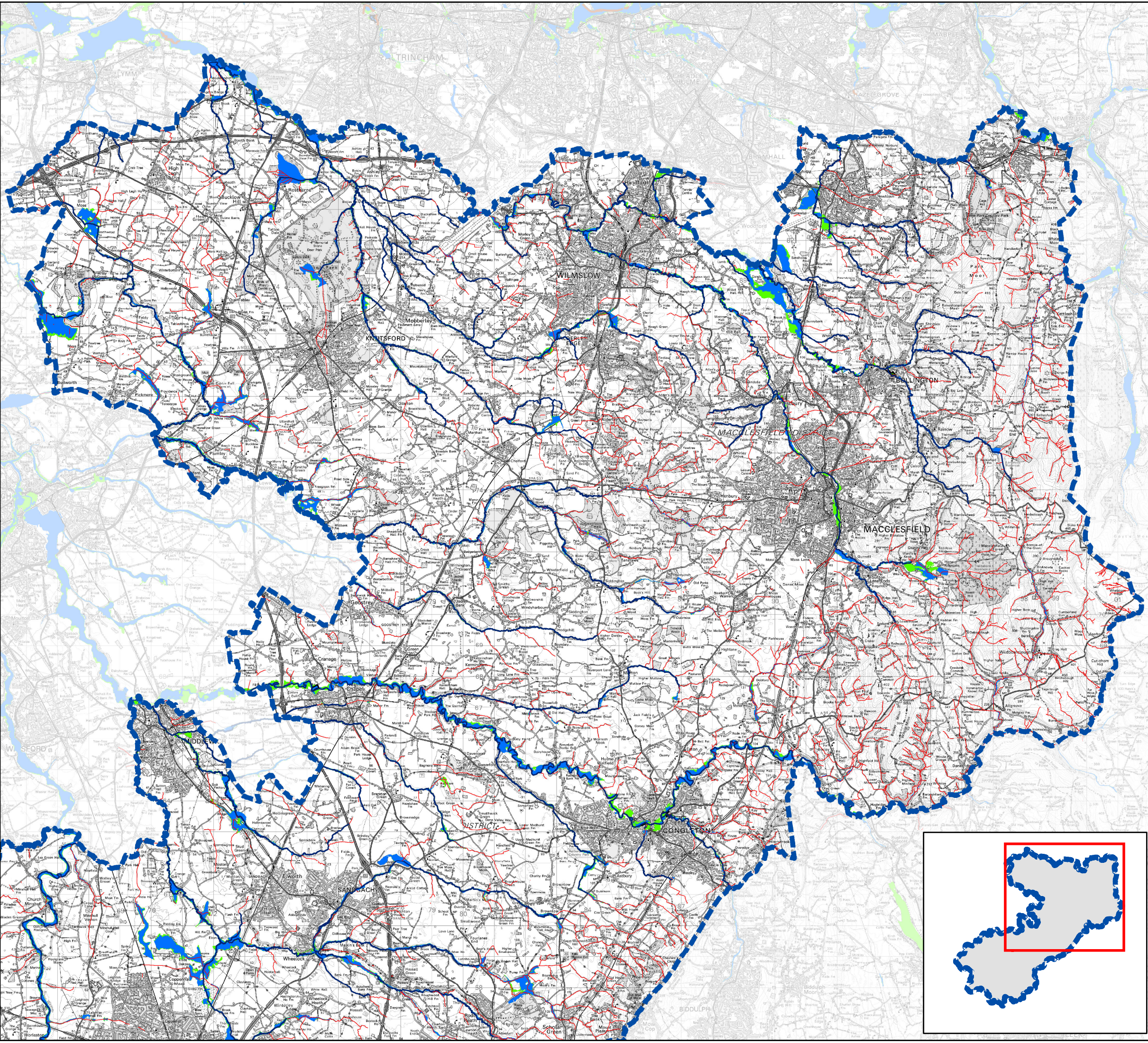
Drawing Title:

Figure 7b - Future Flooding
Areas Susceptible to Surface Water Flooding
Cheshire East South

Revision Information					
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping

Drawing Number:
PFRA/CE/Fig7/AStSWF/CESouth

This page is intentionally left blank



Legend

- CheshireEast Boundary
- Ordinary Watercourse
- Environment Agency Main River
- National Flood Defences
- Areas Benefitting from Defences
- National Flood Zone 3
- National Flood Zone 2

Notes:
The Fluvial Flood Map shows flood risk from Environment Agency Main Rivers and some ordinary watercourses.

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:115,000

024

Kilometers

Office:

Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:

Project:

**Cheshire East
Preliminary Flood Risk Assessment**

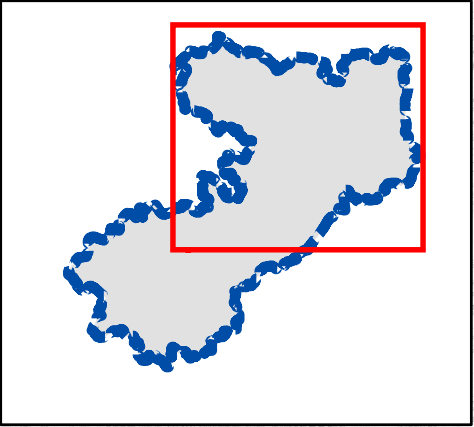
Drawing Title:

Figure 8a - Future Flooding Fluvial Flood Map
Cheshire East North

Revision Information					
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping





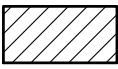


Drawing Number:

PFRA/CE/Fig8/FluvialFloodMap/CENorth




This page is intentionally left blank

Legend

-  CheshireEast Boundary
-  Ordinary Watercourse
-  Environment Agency Main River
-  National Flood Defences
-  Areas Benefitting from Defences
-  National Flood Zone 3
-  National Flood Zone 2

Notes:
The Fluvial Flood Map shows flood risk from Environment Agency Main Rivers and some ordinary watercourses.



N

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:115,000

024

Kilometers

Office:



Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Project:

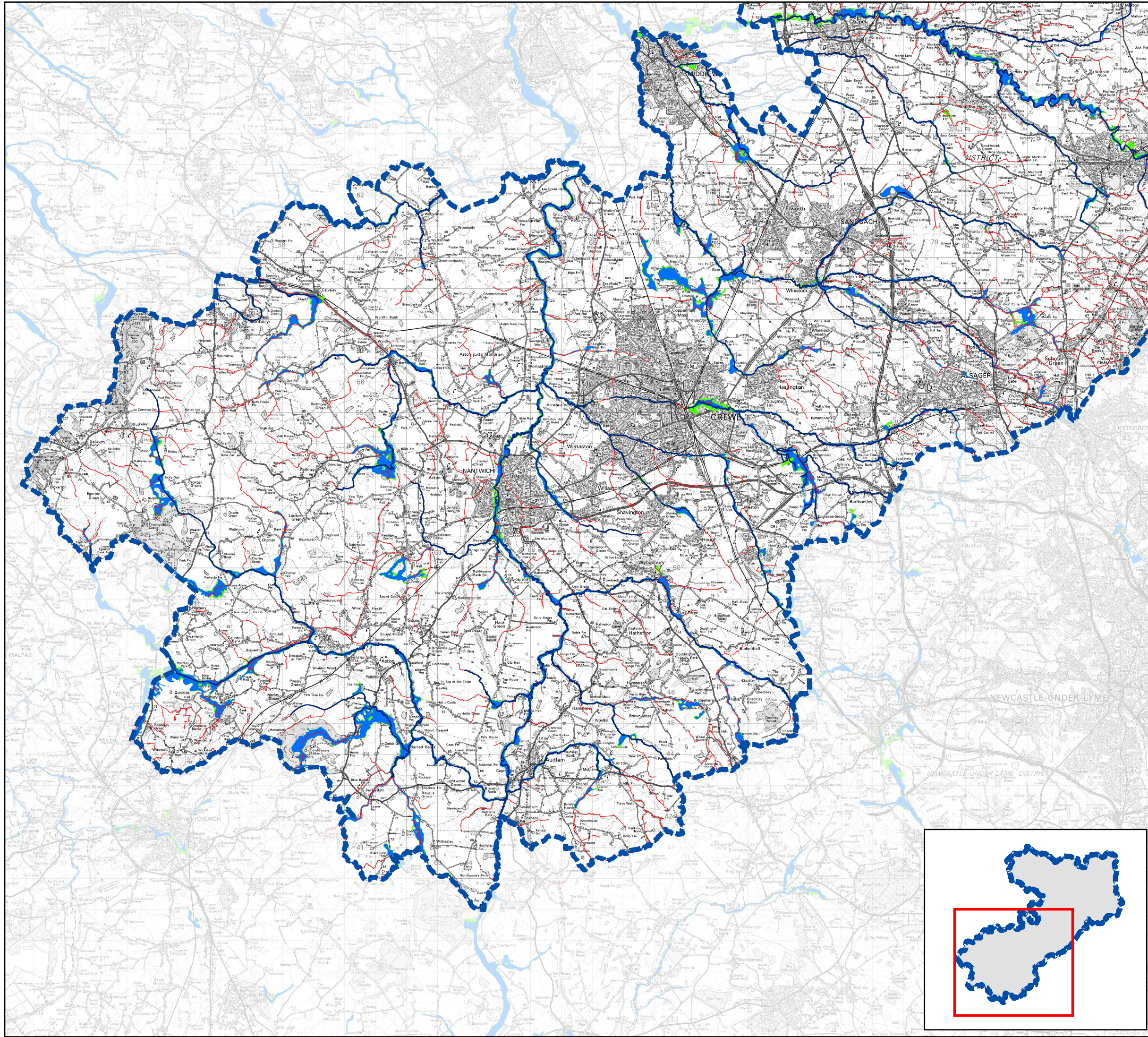
Cheshire East
Preliminary Flood Risk Assessment

Drawing Title:

Figure 8b - Future Flooding Fluvial Flood Map
Cheshire East South

Revision Information					
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping

Drawing Number:
PFRA/CE/Fig8/FluvialFloodMap/CESouth



This page is intentionally left blank

Legend



Cheshire East Boundary

Areas Susceptible to Groundwater Flooding

% of 1km square susceptible to groundwater emergence



< 25%



>= 25% <50%



>= 50% <75%



>= 75%

Notes:

The Areas Susceptible to Groundwater Flooding Data is a strategic scale map showing groundwater flood areas on a 1km square grid.

The data is based on the British Geological Society 1:50,000 scale Groundwater Flood Susceptibility Map.

The data should not be interpreted as identifying areas where groundwater is actually likely to flow, or pond, thus causing flooding. Unless an area identified as 'susceptible to groundwater flooding' is also identified as 'at risk from surface water flooding', it is unlikely that this location would actually experience groundwater flooding to any appreciable depth, and therefore it is also unlikely that the consequences of such flooding would be significant.



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:195,000

0 2.5 5
Kilometers

Office:

JACOBSTM
Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Project:

**Cheshire East
Preliminary Flood Risk Assessment**

Drawing Title:

**Figure 9 - Future Flooding
Areas Susceptible to Groundwater Flooding**

Revision Information



Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping

Drawing Number:


PFRA/CE/Fig9/AStGWF

This page is intentionally left blank

Legend

-  CheshireEast Boundary
-  Groundwater Emergence Zone

Notes:
For further information on the Groundwater Emergence Dataset, please refer to Defra Report LDS23: Strategy for Flood and Coastal Erosion Risk Management: Groundwater Flooding Scoping Study (May 2004)


N

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:195,000

02.55

Kilometers

Office:


Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Project:

**Cheshire East
Preliminary Flood Risk Assessment**

Drawing Title:

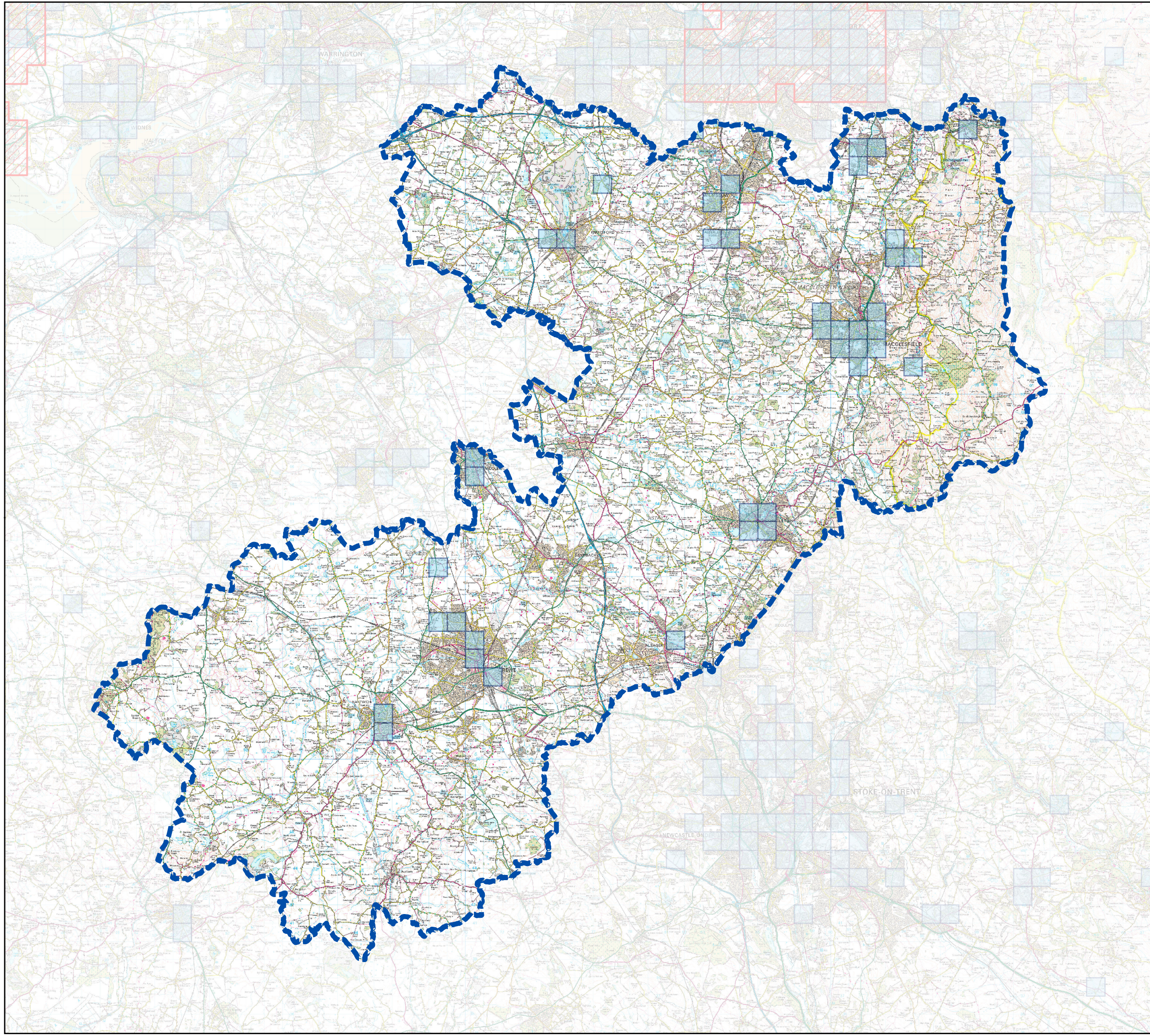
**Figure 10 - Future Flooding
Groundwater Emergence Plan**

Revision Information					
Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping


Drawing Number:


PFRA/CE/Fig10/GroundWaterEmergence


This page is intentionally left blank




Legend

CheshireEast Boundary

Places Above Flood Risk Thresholds

Indicative Flood Risk Areas


Notes:




This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.
Ordnance Survey Copyright 100049046 (2011)

Scale @ A3:
1:195,000

02.55


Kilometers

Office:



Fairbairn House, Ashton Lane
Sale, M33 6WP. Tel: 0161 962 1214

Client:



Project:

**Cheshire East
Preliminary Flood Risk Assessment**

Drawing Title:

**Figure 11 - High
Surface Water Flood Risk Areas**

Revision Information

Issue	Date	Orig	Chck	Rev	
Original	05/11	EDR	DRD	DRD	Draft PFRA mapping

Drawing Number:

PFRA/CE/Fig11/HighRisk

This page is intentionally left blank

CHESHIRE EAST COUNCIL**REPORT TO: Sustainable Communities Scrutiny Committee**

Date of Meeting: 7 July 2011
Report of: Juliet Blackburn, Performance and Partnerships Manager
Subject/Title: Funding For the Community and Voluntary Sector

1.0 Report Summary

- 1.1 This report provides an update on Cheshire East Council's funding to the community and voluntary sector. It provides a summary of the current funding position, the key issues to address, and how the presentation and publication of this funding information is being improved.

2.0 Recommendations

- 2.1 Scrutiny committee is asked to note the report.

3.0 Wards Affected

- 3.1 All

4.0 Local Ward Members

- 4.1 All

5.0 Financial Implications

- 5.1 There are no immediate financial implications from the report - all funding for the community and voluntary sector in 2011/12 is included within the budget.

6.0 Legal Implications (Authorised by the Borough Solicitor)

- 6.1 None

7.0 Risk Management

- 7.1 The reason for undertaking a review of funding to the community and voluntary sector has been, in part, to mitigate the risk of losing important services provided by the sector.

8.0 Background

8.1 This paper has been produced based on work undertaken by a cross directorate working group since July 2010. This group was initially formed to undertake the following tasks:

1. Gather a list of all current funding support for community and voluntary sector organisations, both grants and commissioning.
2. Agree how to consult with the sector during as part of the business planning process for 2011/12, using existing mechanisms as much as possible.
3. Agree the Council's approach to funding for the sector for 2011/14 eg whether to have different funding reductions across services, or a consistent approach.

8.2 In undertaking this work, the group identified the following key points:

1. There is no clear definition of what constitutes a community or voluntary organisation, or a not-for-profit organisation. The working group has therefore chosen to pool information on a broad range of funding.
2. For the purpose of this review Cheshire East funding to community and voluntary sectors can include grants or commissioned services, and can be administered via a contract or service level agreement or a simple grant payment. Different services use different terminology and this is one area where consistency will be improved.
3. The working group has only considered funding provided to the sector, however in-kind support is also provided such as free hall hire or officer support. In-kind support may need to be considered further in order to ensure consistency.

9.0 Overview of current funding position

9.1 A comprehensive spreadsheet has been prepared by the group, identifying all third sector organisations and their current funding arrangements. This information was shared with the Scrutiny Committee in March 2011. The value of creating a single list should not be underestimated – it has highlighted where groups have been inefficiently funded from a number of services, or where groups are funded from the wrong service. This knowledge provides a solid foundation for further improvements to our work with the sector.

9.2 In terms of current funding the following points are worthy of note:

- The Council provides funding to approximately 160 community, voluntary and not for profit organisations
- The total level of funding to the sector is approximately £6.3 million

- The majority of the funding is managed by Adults, Community Health and Wellbeing and Children and Families Services (over 70%). This tends to be commissioned services and is funded through a mixture of central government grants and the Council's base budget.
- Funding for the sector from Places and Health and Wellbeing is much more mixed in terms of the type of organisations funded and the arrangements eg some commissioning, some grants and some service level agreements.
- Funding from the Partnerships team is a mixture of grants to larger infrastructure organisations such as the Council for Voluntary Services, and community grants

9.2 As a result of the review in 2010/11 the working group has implemented the following improvements:

- i. A number of funding arrangements have been transferred from one service to another, primarily from Partnerships to Children and Families or to Adults Community Health and Wellbeing. This strengthens the Council's approach to commissioning the sector rather than grant funding.
- ii. Partnerships, Adults, Community Health and Wellbeing and Children and Families have agreed a joint approach to funding for those few organisations which are jointly funded eg the Citizens Advice Bureau.
- iii. Adults, Community Health and Wellbeing and Children and Families have worked jointly with the Primary Care Trust to identify joint funding arrangements for a number of community and voluntary groups.
- iv. The working group co-ordinated its communication with community and voluntary sector organisations during the business planning process. The Council has established networks, particularly the Community, Voluntary and Faith Sector Hub for Children and Family Services. As each service has established different networks and mechanisms for communication, reflecting the diversity of the organisations funded, a single approach to communication was not considered appropriate. However, good practice has been shared and adopted.

10 Next Steps

10.1 There are 3 main areas of further work in the next 6 months:

- i. **The funding list**

The initial list drawn up in 2010/11 has been very useful but a number of improvements will be made, namely:

- Providing a clear summary of the service/project provided through the funding

- Identifying if the funding is from a central government grant, other grant, or the Council's base budget
- Identifying the geography covered by the service/project
- Identifying a lead officer for each individual funding stream

This improved information will be useful to officers and members in managing funding support to the sector. In addition, this information will be useful for publishing on the Council's webpage. This is in line with the Government's code of recommended practice on data transparency.

ii. Contracting and performance management

The funding review identified a number of different approaches to the paperwork and processes used to provide funding to the sector. The working group is collaborating to establish consistent practices across all directorates which are robust but which minimise bureaucracy.

iii. Improved understanding of the sector in Cheshire East, and improved communication

Services are working together to undertake "market testing" to better understand what services/projects can be provided by our local organisations, and how they think current service provision can be improved. This is important as it increases the sector's role as a partner in developing solutions to improve the quality of life in Cheshire East, not simply responding to the Council's commissioning requests.

As we develop our communication and joint working with community and voluntary groups we will continue to work with CVS Cheshire East (Council for Voluntary Services) as an important umbrella organisation for the sector. We will also continue to work with the Community, Voluntary and Faith Sector Hub (focusing on Children and Family services), and also develop a provider forum for organisations with links to Adults, Community, Health and Wellbeing.

11.0 Access to Information

- 11.1 The background papers relating to this report can be inspected by contacting the report writer:

Name: Juliet Blackburn

Designation: Performance and Partnerships Manager

Tel No: 01270 686 020

CHESHIRE EAST COUNCIL

REPORT TO: Sustainable Communities Scrutiny Committee

Date of Meeting: 7th July 2011
Report of: Tony Potts
Subject/Title: CCTV Relocation

1.0 Report Summary

- 1.1 The report sets out to update members on the progress of the capital scheme relating to the harmonisation of CCTV within Cheshire East.

2.0 Recommendations

- 2.1 To receive the update and make comment.

3.0 Reasons for Recommendations

- 3.1 Inform members of the delay in the programme; provide details of the revised timetable, and work carried out to date.

4.0 Wards Affected

- 4.1 All

5.0 Local Ward Members

- 5.1 All

6.0 Policy Implications including - Climate change - Health

- 6.1 N/A

7.0 Financial Implications for Transition Costs (Authorised by the Borough Treasurer)

- 7.1 None

8.0 Financial Implications 2009/10 and beyond (Authorised by the Borough Treasurer)

- 8.1

9.0 Legal Implications (Authorised by the Borough Solicitor)

- 9.1 None, subject to the comments of the scrutiny committee.

10.0 Risk Management

- 10.1 Ensure the council complies with its legal obligations, in relation to Data protection and human rights, which could impact upon the council's reputation.

11.0 Background and Options

- 11.1 Members will be aware that Cheshire East inherited 3 independent CCTV systems, one at Crewe/Macclesfield and Sandbach. The aim was to "Harmonise" these into one control room at Macclesfield, as part of the ICT/CCTV Capital programme.
- 11.2 The control room at Crewe was located within the Victoria shopping centre, these premises were leased. The company served notice on the council and within the terms of the lease the council were required to vacate the premise in January 2011. In order to accommodate this, the control room at Crewe was moved to Macclesfield and is currently located within the existing Macclesfield control centre.
- 11.3 Working in parallel with the Data centre project the new control room should have been completed in September 2010, unfortunately for a variety of reasons this programme has been delayed and a revised date of March 2011, was predicted. This has now been moved to November 2011, due to the delay in the ICT Data centre project.
- 11.4 The consequences of these delays have meant that the "out of hours" services that CCTV provide, having taken this on from message pad on April the 26th 2011 has meant the service cannot easily be serviced from two locations i.e. Macclesfield and Sandbach and has caused operational and staffing issues.
- 11.5 The project Director has therefore approved the moving of the Sandbach control room to Macclesfield in a similar fashion to the early Crewe move which will bring all staff together before the final suite is in operation. This will be carried out on the 30th June 2011
- 11.6 Once the new suite is available later in the year the final move can take place, as per the project specification and will realise the full benefits to the council.

12.0 Overview of Year One and Term One Issues

12.1 N/A

13.0 Access to Information

The background papers relating to this report can be inspected by contacting the report writer:

Name: Tony Potts

Designation: Community Safety Manager

Tel No: 01270 686620

Email: Tony.Potts@cheshireeast.gov.uk

This page is intentionally left blank

CHESHIRE EAST COUNCIL

REPORT TO: SUSTAINABLE COMMUNITIES SCRUTINY COMMITTEE

Date of Meeting:	7 July 2011
Report of:	Borough Solicitor
Subject/Title:	Work Programme update

1.0 Report Summary

- 1.1 To review items in the 2011 Work Programme, to consider the efficacy of existing items listed in the schedule attached, together with any other items suggested by Committee Members.

2.0 Recommendations

- 2.1 That the work programme be received and noted.

3.0 Reasons for Recommendations

- 3.1 It is good practice to agree and review the Work Programme to enable effective management of the Committee's business.

4.0 Wards Affected

- 4.1 All

5.0 Local Ward Members

- 5.1 Not applicable.

6.0 Policy Implications including - Climate change - Health

- 6.1 Not known at this stage.

7.0 Financial Implications for Transition Costs

- 7.1 None identified at the moment.

8.0 Legal Implications (Authorised by the Borough Solicitor)

- 8.1 None.

9.0 Risk Management

- 9.1 There are no identifiable risks.

10.0 Background and Options

- 10.1 In reviewing the work programme, Members must pay close attention to the Corporate Plan and Sustainable Communities Strategy.
- 10.2 The schedule attached, has been updated in line with the Committees recommendations on 2 June 2011. Following this meeting the document will be updated so that all the appropriate targets will be included within the schedule.
- 10.3 In reviewing the work programme, Members must have regard to the general criteria which should be applied to all potential items, including Task and Finish reviews, when considering whether any Scrutiny activity is appropriate. Matters should be assessed against the following criteria:
- Does the issue fall within a corporate priority
 - Is the issue of key interest to the public
 - Does the matter relate to a poor or declining performing service for which there is no obvious explanation
 - Is there a pattern of budgetary overspends
 - Is it a matter raised by external audit management letters and or audit reports?
 - Is there a high level of dissatisfaction with the service
- 10.4 If during the assessment process any of the following emerge, then the topic should be rejected:
- The topic is already being addressed elsewhere
 - The matter is subjudice
 - Scrutiny cannot add value or is unlikely to be able to conclude an investigation within the specified timescale

11.0 Access to Information

The background papers relating to this report can be inspected by contacting the report writer:

Name: Mark Grimshaw
Designation: Scrutiny Officer
Tel No: 01270 685680
Email: mark.grimshaw@cheshireeast.gov.uk

Sustainable Communities Scrutiny Committee Work Programme – May 2011

Issue	Description/Comments	Suggested by	Portfolio Holder	Corporate Priority	Current Position	Date
Community Safety Warden Service	To receive a progress report on the new working arrangements including detailed financial information on the savings achieved through the restructure.	Committee	Bailey	Safer Communities	On going	1 September 2011

Possible Items to Monitor or consider at future Meetings

- Performance Management
- Process and Policy for Anti Social Neighbours in private and let accommodation.
- Budget
- Establishment of the Cheshire Road Safety Group
- Potential impacts of the Pilkington Case Report
- Reconvene Task and Finish Group on Community Wardens.

Dates of Future Meetings

1 September 2011, 6 October 2011, 3 November 2011, 1 December 2011, 5 January 2012, 2 February 2012, 1 March 2012, 5 April 2012 and 10 May 2012.

Dates of Future Cabinet Meetings

1 August 2011, 5 September 2011, 3 October 2011, 31 October 2011, 28 November 2011, 5 December 2011, 9 January 2012, 6 February 2012, 5 March 2012, 2 April 2012 and 30 April 2012.

Sustainable Communities Scrutiny Committee Work Programme – May 2011

Dates of Future Council Meetings

21 July 2011, 13 October 2011, 15 December 2011, 23 February 2012, 19 April 2012 and 16 May 2012.



FORWARD PLAN 1 JULY 2011 - 31 OCTOBER 2011

This Plan sets out the key decisions which the Executive expect to take over the next four months. The Plan is rolled forward every month. It will next be published in mid July and will then contain all key decisions expected to be taken between 1 August and 30 November 2011. Key decisions are defined in the Councils Constitution.

Reports relevant to key decisions, and any listed background documents may be viewed at any of the Councils Offices/Information Centres 6 days before the decision is to be made. Copies of, or extracts from these documents may be obtained on the payment of a reasonable fee from the following address:-

Democratic Services Team
Cheshire East Council ,
c/o Westfields, Middlewich Road, Sandbach Cheshire CW11 1HZ
Telephone: 01270 686463

However, it is not possible to make available for viewing or to supply copies of reports or documents, the publication of which is restricted due to confidentiality of the information contained.

A decision notice for each key decision is published within 6 days of it having been made. This is open for public inspection on the Council's Website, Council Information Centres and Council Offices.

The law and the Council's Constitution provides for urgent key decisions to be made. A decision notice will be published for these in exactly the same way.

Forward Plan 1 July 2011 to 31 October 2011

Key Decision	Decisions to be Taken	Decision Maker	Expected Date of Decision	Proposed Consultation	Relevant Scrutiny Committee	How to make representation to the decision made
CE10/11-62 Transfer and Devolution of Services and Functions to Town and Parish Councils	To receive an update on the project and to approve any points of negotiation reached.	Cabinet	1 Aug 2011	With Town and Parish Councils, local ward members, staff and unions.	Sustainable Communities	Ceri Harrison, Head of Corporate Improvement
CE10/11-69 Libraries Services Strategy Development	To determine the approach to the delivery of library services.	Cabinet	1 Aug 2011	Staff, customers, Ward Members, Town and Parish Councils by means of meetings, notices and briefings.	Corporate Scrutiny 1 February 2011	Guy Kilminster, Head of Health and Wellbeing Services
CE11/12-11 Customer Services Strategy	To approve the Customer Services Strategy.	Cabinet	1 Aug 2011	There will be a consultation period after the decision has been made on the options available.	Resources	Vivienne Quayle, Head of Policy and Performance

Key Decision	Decisions to be Taken	Decision Maker	Expected Date of Decision	Proposed Consultation	Relevant Scrutiny Committee	How to make representation to the decision made
CE11/12-4 Business Planning Process 2012/2015 - Business Plan	To approve the Business Plan for 2012/2015 incorporating updated budget and policy proposals together with the Capital Programme.	Cabinet, Council	6 Feb 2012	With all Members and a range of local stakeholders including PCT's, Parish Councils, social care representatives, businesses, trades unions, the schools forum and the public.	To be determined but expected to be a scrutiny budget consultation group.	Lisa Quinn, Borough Treasurer and Head of Assets (Section 151 Officer)

This page is intentionally left blank