



**Salford City Council
Planning Guidance
Flood Risk and Development
Adopted July 2008**

Preface

This document can be provided in large print, audio, electronic and Braille formats. If you require it in any of these formats please contact Spatial Planning on 0161 793 3782.

إذا احتجت للمساعدة في فهم هذه النشرة , برجاء الاتصال بفريق المساواة في مجلس سالفورد,
هاتف رقم 0161 793 3536

এই পুস্তিকাটি বোঝার জন্য যদি আপনার সাহায্যের প্রয়োজন হয় তাহলে সেলফোর্টে কাউন্সিলের ইকুয়ালিটি টিমের সঙ্গে যোগাযোগ করুন টেলিফোন নম্বর 0161 793 3536

如果您有關於本宣傳頁的任何問題，請聯繫 Salford 理事會的 Equalities 團隊，電話號碼為 0161 793 3536

જો આ લીફલેટ સમજવા મોટ તમને મદદની જરૂરત હોય, કૃપો કરી ઇકવાલિટીજ ટીમ સર્વોર્ડ કાઉન્સિલનો ટેલિફોન નમ્બર 0161 793 3536 પર સંપર્ક કરો.

ਜੇ ਤੁਹਾਨੂੰ ਇਸ ਲੀਫਲੈਟ ਨੂੰ ਸਮਝਣ ਵਿਚ ਸਹਾਇਤਾ ਦੀ ਜ਼ਰੂਰਤ ਹੈ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਲਫੋਰਡ ਕੌਂਸਲ (Salford council) ਵਿਚ ਇਕੁਅਲਿਟੀ ਟੀਮ (Equalities Team) ਨਾਲ ਫੋਨ ਨੰਬਰ 0161 793 3536 'ਤੇ ਸੰਪਰਕ ਕਰੋ।

اگر آپ کو اس لیف لیٹ کے سمجھنے میں مدد کی ضرورت ہو تو براہ کرم اکیوئٹی ٹیم کو سالفورڈ کونسل سے اس ٹیلی فون نمبر 0161 793 3536 پر رابطہ قائم کر سکتے ہیں۔

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1 Consultation

- 1.1 This Flood Risk and Development Planning Guidance has been subject to a 6-week public consultation period between 29th June and 9th August 2007.
- 1.2 Proposed Amendments to the Flood Risk and Development Planning Guidance have been the subject of consultation between 1st and 28th February 2008.
A schedule of the responses received during the two consultation periods can be viewed on the Salford City Council website at www.salford.gov.uk/floodrisk-plansguidance

2 Purpose of Document

Aims and Objectives

- 2.1** The purpose of the Flood Risk and Development Planning Guidance is to supplement Policy EN19: Flood Risk and Surface Water of the City of Salford Unitary Development Plan (UDP) (adopted June 2006).
- 2.2** The planning guidance does not form part of Salford's Local Development Framework, but as adopted council policy is a material planning consideration in the determination of planning applications.
- 2.3** The overarching aim of the planning guidance is to ensure that new development in areas at risk of flooding in the city, is adequately protected from flooding and that the risks of flooding are not increased elsewhere as a result of new development.
- 2.4** In order to deliver that aim, the planning guidance has the following objectives:
1. To translate the principles and key findings of the City of Salford Strategic Flood Risk Assessment (SFRA) into a set of planning requirements to guide new development in areas at risk of flooding.
 2. To ensure that all stakeholders have a clear understanding of how UDP Policy EN19 is to be implemented.

UDP Policy EN19: Flood Risk and Surface Water

Development, including the alteration of land levels, will not be permitted where it would:

- i. Be subject to an unacceptable risk of flooding;
- ii. Materially increase the risk of flooding elsewhere; or
- iii. Result in an unacceptable maintenance liability for the city council or any other agency in terms of dealing with flood risk issues.

Any application that is considered to be at a risk of flooding, or increase the risk of flooding elsewhere materially, will need to be accompanied by a formal flood risk assessment that should accurately assess the level of flood risk involved. Where appropriate, it should clearly identify the mitigation or other measures to be incorporated into the development or undertaken on other land which are designed to reduce that risk of flooding to an acceptable level.

In determining the potential impact of the proposed development on the risk of flooding elsewhere, particular regard will be had to the extent to which the development:

- a. Is located within or impacts upon a functional floodplain or floodzone;
- b. Incorporates protection, attenuation or mitigation measures, and the use of source control techniques and sustainable drainage systems; and
- c. Provides adequate access to watercourses for maintenance purposes.

Where development would be subject to a significant flood risk, including on allocated sites, and it is not possible to reduce the risk to an acceptable level through design solutions or other measures secured through the development, it will be allowed to proceed only in co-ordination with the completion of those elements of the River Irwell Flood Control Scheme which are necessary to mitigate the identified risk satisfactorily.

Development will not be permitted unless adequate provision is made for the discharge of foul and surface water associated with the proposal.

Reasoned Justification

Flooding in Salford is mainly due to high water tables, and surcharged watercourses, culverts and sewers. It can affect parts of Lower Broughton, Charlestown, Kersal and Clifton Junction lying in the flood plain of the River Irwell; parts of Barton, Peel Green, Winton, Worsley and the Linnyslaw area of Walkden lying in the flood plain of several brooks; parts of Irlam falling in the flood plain of Platt's Brook and the River Irwell (old course); land adjoining the Glaze Brook in Cadishead; and land adjoining Shaw Brook and Whitehead Brook to the North of Worsley Moss, in Worsley and Boothstown. These areas are shown diagrammatically in Appendix D and in greater detail on the Environment Agency's Indicative Flood Plain Maps. Development can have significant implications for flood risk. Within areas susceptible to flooding, new development may itself be at risk of flooding and may in turn increase the risk of flooding elsewhere by reducing the capacity of the land to naturally drain and/or increasing surface water run-off. Risk, and the measures which may be required to mitigate it, will be assessed by reference to the council's Strategic Flood Risk Assessment in consultation with the Environment Agency, flood risk maps and local knowledge.

For sites thought to be at risk of flooding developers will be required to undertake an assessment of flood risk and the run off implications of their proposals that is appropriate to the scale and nature of the development and the risks involved.

Waterside development is playing an important role in the city's regeneration but, in areas that are at risk of flooding, development may only be appropriate where design solutions are used to minimise that risk to an acceptable level.

New development often increases the demands of the local foul and surface water drainage systems and it is important that these have the adequate capacity to cope with this. Where they would not, developers will be expected to contribute to their improvement. The use of sustainable drainage systems to slow down drainage and create water-holding features may be necessary, together with maintenance provision where appropriate, as may other features required to ensure that the risk of flooding is not increased. Sustainable drainage systems may also have potential added benefits of creating environmental features from areas set aside for the collection and passive treatment of surface water, for example new wetland habitats, bringing amenity and nature conservation benefits. However it should be noted that the sewerage undertaker may not always agree to adopt sustainable drainage systems.

The culverting of watercourses should be avoided wherever possible, because of the adverse effects on flood defence and ecology. Applications involving the culverting of a watercourse will be only permitted if there is no reasonable practical alternative or if the effects would not justify a more costly alternative. In all cases, where it is appropriate to do so, adequate mitigation must be provided for any damage caused. The reopening of culverted watercourses where this leads to environment and flood defence improvements, will be encouraged.

Strategic Flood Risk Assessment for Salford

- 2.5** The City of Salford Strategic Flood Risk Assessment (SFRA) was completed in December 2005. It provides an assessment of flood zones across Salford and a detailed assessment of flood risk from the River Irwell. It determines the suitability of land for development in terms of flood risk in Lower Broughton, Charlestown and Lower Kersal.
- 2.6** The policies contained within this planning guidance are based on the principles of Planning Policy Statement 25: Development and Flood Risk (PPS25) and they have also been formulated in liaison with the Environment Agency (EA) and the mitigation measures that the SFRA recommends should be incorporated into new development in order to manage flood risk to an acceptable level.
- 2.7** A copy of the SFRA is available on the city council's website:
(<http://www.salford.gov.uk/living/planning/naturalenvironment/flood-risk/strategicfloodriskassessment.htm>)

Planning Advice Note - Managing Flood Risk in Salford

- 2.8** The 'Planning Advice Note - Managing Flood Risk in Salford' was produced by Jeremy Benn Associates in collaboration with the council and the Environment Agency in December 2005. It provided interim informal guidance to developers on the mitigation measure that should be incorporated into new development in order to manage flood risk to an acceptable level. The policies within this planning guidance are based on and updates the recommendations in the 'Planning Advice Note - Managing Flood Risk in Salford'.
- 2.9** This Flood Risk and Development Planning Guidance supersedes the 'Planning Advice Note - Managing Flood Risk in Salford'.

3 Area Applicable to the Guidance

- 3.1** The policies contained within this planning guidance are applicable to new development in High Flood Risk Zone 3 and Medium Flood Risk Zone 2 of the city, which are equivalent to the land covered by the Environment Agency's indicative 1:100 year and 1:1,000 year floodplain maps respectively, shown on Map 1 in Appendix A. The Guidance is also applicable to new development of 1 ha or above in Low Flood Risk Zone 1 which is equivalent to the rest of Salford outside Zones 3 and 2 and to new development proposed in areas that in the past have experienced sewer flooding and/or surface water drainage flooding identified on Map 3 in Appendix A.
- 3.2** Note: The floodplain outlines in Map 1 are indicative and should be used with caution. They do not take account of the presence of flood defences and topography. Figure 8.1, 8.2 and 8.3 in the Strategic Flood Risk Assessment (SFRA) provide more accurate outlines of the 1:100 year floodplain (High Flood Risk Zone 3) and 1:1,000 year floodplain (Medium Risk Zone 2) for the River Irwell. The maps in the SFRA should be used to identify whether a proposed development falls within High Flood Risk Zone 3 or Medium Flood Risk Zone 2 for the River Irwell floodplain. For all other floodplains in Salford, Map 1 in Appendix A of this Planning Guidance should be used.
- 3.3** The SFRA can be view at:
<http://www.salford.gov.uk/living/planning/naturalenvironment/flood-risk/strategicfloodriskassessment.htm>
- 3.4** The checklist in Appendix C summarises which policies in this planning guidance should be applied to new development proposals based on the development type and degree of flood risk.
- 3.5** Satisfying the policies in this Planning Guidance is not a reason for poor urban, architectural and landscape design. Proposals for new development will still need to satisfy the design policies in the City of Salford Unitary Development Plan (UDP) and the policies contained within the Design Supplementary Planning Document (SPD).

4 Flooding Issues in Salford City Context

River Flooding

- 4.1** Flooding in Salford has taken place periodically over the past 150 years. The earliest record of flooding dates back to 1866 when some 800 hectares of land covered by crowded tenements, dwelling houses and factories were flooded from the River Irwell. The most significant recent flood took place in 1946, when the River Irwell flooded 243 hectares of land in Lower Kersal, Charlestown and Lower Broughton and affected approximately 5,000 residential and 300 industrial properties.
- 4.2** Today approximately 10,226 properties across Salford are subject to a high risk of flooding. The majority of these properties are located in the floodplain of the River Irwell in Lower Kersal, Charlestown and Lower Broughton where approximately 6,636 properties are at high risk. These areas are depicted in Map 1 in Appendix A.
- 4.3** The floodplains of Lower Kersal, Charlestown and Lower Broughton are hydraulically linked, and any changes to one floodplain is likely to have a knock-on effect on the other floodplains, and also likely to have some impact on river flows through Salford and Manchester and into the Manchester Ship Canal. See Map 2 in Appendix A.

Lower Kersal

- 4.4** Lower Kersal sits in a meander loop of the River Irwell and is at a relatively low elevation compared to the surrounding land. The area is afforded some degree of protection by the presence of raised flood defences along the riverbank and the flood storage basin at Littleton Road, which raises the level of protection to a 1:75 year standard. The main risk of flooding to Lower Kersal would be from overtopping or breaching of the flood defences along the riverbank of the Irwell upstream of Littleton Road Bridge. Depths of flooding of up to 0.5m would be expected for a 1:100 year flood event. In an extreme flood simulated to the 1:1,000 year flood event, maximum depths of flooding of up to 3m would be expected.

Charlestown

- 4.5** Charlestown is situated on the opposite side of the River Irwell to Lower Kersal. It is protected to a 1:75 year standard by flood defences along the riverbank of the Irwell and the Flood Storage Basin at Littleton Road. The main risk of flooding is from breaching or overtopping of the riverbank upstream of the Littleton Road Bridge. In these circumstances floodwater would flow through Charlestown to rejoin the river further downstream of Cromwell Bridge and upstream of Wallness Bridge. Depths of flooding would be expected up to 0.5m in a 1:100 year flood event and up to a depth of 2m in a 1:1,000 year flood event.

Lower Broughton

- 4.6** Lower Broughton is situated opposite Charlestown on the eastern side of the River Irwell. The riverbank defences and the Littleton Road flood storage basin protect the area to a 1:75 year standard. The main risk of flooding is from overtopping or breaching of the flood defences between Wallness Bridge and Hough Lane footbridge and upstream of Cromwell Bridge. Lower Broughton is at a relatively low elevation compared to surrounding land. It is in effect the lowest point in the Lower Irwell floodplain system and therefore acts as a

collecting point for floodwaters. Consequently depths of flooding could be particularly high in some areas such as Cambridge Industrial Estate, with depths of up to 2m in a 1:100 flood year event and 3.5m in a 1:1,000 year flood event.

Smaller watercourses

- 4.7 Approximately 3,590 properties are at a high risk of flooding from smaller watercourses elsewhere in the city: including Worsley Brook catchment which comprises Whittle Brook, Kempnough Brook, Wardley Brook, How Clough Brook and Linnyslaw Brook affecting parts of Walkden, Winton and Worsley; Saltey Brook and Folly Brook affecting parts of Peel Green and Barton; Platt's Brook and the River Irwell (old course) affecting parts of Irlam; Glaze Brook affecting parts of Cadishead and; Ellenbrook, Shaw Brook and Stirrup Brook affecting the area north of Worsley Moss.
- 4.8 These smaller rivers are depicted in Map 1 in Appendix A.

Artificial water bodies

- 4.9 The Manchester Ship Canal, Manchester Bolton Bury Canal and Bridgewater Canal run through Salford.
- 4.10 The Manchester Ship Canal is an important water body because it effectively acts as the main drain for the whole of Greater Manchester. It receives water from the River Irwell, River Mersey, Worsley Brook catchment and Glaze Brook catchment. Current understanding of the risk of flooding from the Manchester Ship Canal is limited.

Sewer flooding and surface water drainage flooding

- 4.11 There are approximately 1,000 properties across the city that are affected by sewer flooding and/or surface water drainage flooding. Surface water drainage flooding usually takes place from rapid runoff after heavy rainfall in the summer months. Areas in Higher Broughton, Ellesmere Park, Swinton, Boothstown, Walkden and Little Hulton have the highest risk of these types of flooding. Table 4.2 in the Strategic Flood Risk Assessment (SFRA) provides more information about the nature of the flooding in each of these areas. Map 3 in Appendix A of this planning guidance depicts these areas graphically. It is important to note that Map 3 only shows areas where there are the highest concentration of incidences of sewer flooding and/or surface water drainage flooding. There will be other areas that suffer from these types of flooding outside the areas identified on Map 3.
- 4.12 In addition, the sewer system servicing Lower Broughton is dependent upon combined sewer overflows (CSOs) that spill into the River Irwell. When the river is at a high level, the combined sewer (including sewage) is unable to discharge into the river and backs up into the sewer network. Low-lying properties are at a risk of flooding, as there is limited spare capacity in the sewerage network to store the backed up sewage.

5 Policy Context

National Policies - PPS25: Development and Flood Risk

- 5.1** Planning Policy Statement 25: Development and Flood Risk (PPS25) aims to ensure that flood risk is taken into account at all stages of 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, this policy statement aims to make it safe without increasing flood risk elsewhere and where possible, reduce flood risk overall.

Responsibilities

- 5.2** PPS25 identifies various bodies involved in protecting property and people against flood risk. Landowners have the primary responsibility for safeguarding their land and other property against flooding. There is no statutory duty on the Government to protect land or property against flooding. Local planning authorities are responsible for the determination of planning applications for which flood risk is a material consideration. The Environment Agency is the operating authority for 'Main Rivers', supervises matters relating to flood defence and advises local planning authorities on the implications of development proposals on flood risk issues.

Climate Change

- 5.3** PPS25 recognises that climate change is likely to change current weather patterns in the UK and have an impact on the risk of flooding. For the North West region it is anticipated that sea levels will rise by between 7 and 36cm and winters will become wetter by as much as 20 percent by the 2050s. A shift in the seasonal pattern of rainfall is also expected with summers and autumns becoming much drier than at present but with an increasing propensity to heavy downpours. Snowfall volumes will decrease significantly, but the number of rainy days and the average intensity of rainfall are expected to increase. Not only will this influence the amount of water within a river channel, it is likely to place increasing strain on the existing network of pipes and drains handling surface water runoff.
- 5.4** PPS25 recommends adding a climate change allowance of 20% to peak river flows when undertaking Flood Risk Assessments (FRA).

The Sequential Test and Exception Test

- 5.5** The Sequential Test divides land at risk of flooding into three zones based on the degree of risk (see Map 1, Appendix A). Zone 1 equals low risk (i.e. < 1:1,000) and is equivalent to all areas outside Zones 2 and 3, Zone 2 equals medium risk (i.e. 1:100 – 1:1,000) and Zone 3 is high risk (i.e. > 1:100). The overall aim of the Sequential Test is to steer new development into locations with the lowest risk of flooding. Where this is not possible, new development should only be located in areas with a higher risk of flooding by meeting the Exception Test. Part of this test is to demonstrate that the risks of flooding to people, property and adjacent land can be reduced to an acceptable level. As part of the Sequential Test, a development's vulnerability to flooding is also considered by matching its location to either Flood Risk Zone, 1, 2 or 3.

- 5.6** The Exception Test presents a series of criteria that new development, which is deemed essential to sustainable development, needs to satisfy to justify its location in High Flood Risk Zone 3.
- 5.7** For the Exception Test to be passed:
- a. it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk;
 - b. the development should be on developable previously-developed land or, if it is not on previously developed land, that there are no reasonable alternative sites on developable previously-developed land: and
 - c. a Flood Risk Assessment (FRA) must demonstrate that the development will be safe, without increasing flood risk elsewhere, and where possible, reduce flood risk overall.
- 5.8** It should be noted that compliance with Salford's Flood Risk and Development Planning Guidance does not exempt a developer from undertaking the Exception Test in order to establish the appropriateness of new development within an area of high flood risk.

Regional Policies

- 5.9** Regional Planning Guidance for the North West (RPG13) Policy ER8 Development and Flood Risk seeks to ensure that inappropriate development is not located in areas at risk of flooding. This is to be achieved through application of the Sequential Test to development allocations and planning applications.
- 5.10** RPG13 is the subject of review. The New Regional Spatial Strategy (RSS), currently in draft form will provide a framework for the physical development of the region over the next fifteen to twenty years. It addresses the scale and distribution of housing development and sets priorities for dealing with environmental issues, transport, infrastructure, economic development, agriculture and treatment and disposal of waste.
- 5.11** Draft RSS Policy EM5: Integrated Water Management seeks to protect the quality and quantity of surface, ground and coastal waters and manage flood risk. Flood risk is to be managed by application of the Sequential Test. Any development which must be exceptionally located in current or future flood risk areas should be resilient to flooding, protected to appropriate standards, and not increase the risk of flooding elsewhere. EM5 also seeks to promote the use of sustainable drainage systems (SUDS) in new and existing development and raise people's awareness of flood risk.

Catchment Flood Management Plans

- 5.12** The Environment Agency (EA) is responsible for producing Catchment Flood Management Plans (CFMPs) which define long-term strategic policies for sustainable flood risk management across whole river catchments. The CFMPs identify the current flood risk management measures and characteristics of river catchments and make recommendations for the future management of flood risk taking into account changes to land uses and development, population growth and effects of climate change. Three CFMPs cover Salford, they are the River Irwell CFMP, Upper Mersey CFMP and Mersey Estuary CFMP.

5.13 CFMPs are available on the EA's website at www.environment-agency.gov.uk

Local Policies

5.14 The City of Salford Unitary Development Plan (UDP) is a statutory document that sets out the council's planning policies that will be used to guide development, conservation, regeneration and environmental improvement activity in Salford. Decisions on planning applications must be made in line with the UDP, unless there are clear material considerations that dictate why this should not be the case. This planning guidance supplements UDP Policy EN19: Flood Risk and Surface Water.

5.15 The Lower Broughton Design Code Supplementary Planning Document (SPD) provides specific design guidance for new development in the Lower Broughton area. Policy LBDC 9: Flood Risk aims to ensure that proposals for new development in high flood risk areas in Lower Broughton are accompanied by a flood risk assessment which demonstrates that flood risk can be satisfactorily managed.

5.16 The Sustainable Design and Construction SPD provides guidance to minimise the potentially negative impacts of new development on the local and global environment. Policy SDC1: Sustainable Design and Construction in New Developments and Chapter 11: Minimising the Speed and Quantity of Surface Water Run Off provides guidance on the use of Sustainable Drainage Systems (SUDS) in new development to minimise the impact on surface water drainage and sewer flooding.

6 Planning Guidance Policies

Policy FRD 1

Flood Risk Assessments

A Flood Risk Assessment will be required to accompany planning applications for:

- i. any development proposals in High Flood Risk Zone 3;
- ii. any development proposals in Medium Flood Risk Zone 2; or
- iii. any operational development proposals of 1ha or above in Low Flood Risk Zone 1,

that are considered likely to be at risk of flooding or increase the risk of flooding elsewhere.

The Flood Risk Assessment should:

- i. identify and assess the risks of all forms of flooding to and resulting from the development, taking into account climate change;
- ii. demonstrate how the risk of flooding will be managed;
- iii. demonstrate that the development complies with the policies contained in this planning guidance; and
- iv. include an Emergency Planning Statement detailing flood warning and evacuation measures, where applicable.

Reasoned Justification

- 6.1** The level of detail required for a Flood Risk Assessment (FRA) should be proportionate to the degree of flood risk and the scale, nature and location of the proposed development.
- 6.2** Before embarking on a FRA, a developer should contact the Environment Agency (EA) to discuss the scope and content of the FRA and to find out what existing information is already available for use in the FRA e.g. flood levels and flood models.
- 6.3** Where a proposed development falls within the floodplain of the River Irwell, the City of Salford Strategic Flood Risk Assessment (SFRA) can be used to gain a preliminary understanding of flood risk which would need to be investigated in more detail for a site specific FRA.
- 6.4** For non-residential extensions with a floor space up to 250 square metres and householder developments, the FRA will only need to demonstrate that Policy FRD2 'Flood Risk Management in Non-Residential Extensions with a Floor Space up to 250 square metres and Householder Developments' in this Planning Guidance has been satisfied. For all other developments, the Practice Guide to PPS25 recommends that a FRA should include the following outputs:
 - 1. Development description and location**
 - What type of development is proposed and where will it be located?
 - What is its Vulnerability Classification (Table D2 in PPS25)?

- Is the proposed development consistent with the local planning policy?
 - Evidence that the Sequential Test or Exception Test has been applied in selection of this site for the development type proposed.
2. **Definition of the Flood Hazard**
 - What sources of flooding could affect the site?
 - For each identified source, describe how flooding would occur, with reference to any historic records wherever these are available.
 - What are the existing surface water drainage arrangements for the site?
 3. **Probability**
 - Which flood zone is the site within?
 - If there is a Strategic Flood Risk Assessment (SFRA) covering the site, what does it show?
 - What is the probability of the site flooding taking into account the contents of the SFRA and any further site-specific assessment?
 - What are the existing rates and volumes of run-off generated by the site?
 4. **Climate Change**
 - How is flood risk at the site likely to be affected by climate change?
 5. **Detailed development proposals**
 - Details of the development layout, referring to relevant drawings.
 - Where appropriate, demonstrate how land-uses most sensitive to flood damage have been placed in areas within the site that are a least risk of flooding.
 6. **Flood Risk management measures**
 - How will the site be protected from flooding, including the potential impacts of climate change, over the development's lifetime?
 7. **Off site impacts**
 - How will it be ensured that the measures to protect your site from flooding will not increase flood risk elsewhere?
 - How will you prevent surface water run-off from the completed development causing an impact elsewhere?
 - How will surface water run-off be disposed from the site in the most sustainable manner?
 8. **Residual risks**
 - What flood-related risks will remain after implementing measures to protect the site from flooding?
 - How, and by whom, will these risks be managed over the lifetime of the development?
- 6.5** Current understanding of the risk of flooding from the Manchester Ship Canal is limited and there is an absence of robust data on the Environment Agency Flood Map identified on Map 1 in Appendix A. At present, land in the vicinity of the Manchester Ship Canal in Salford appears to be outside the High Flood Risk Zone 3 and Medium Flood Risk Zone 2. However, modelling of the Manchester Ship Canal is currently being undertaken by the Manchester Ship Canal Company. It is intended that this modelling once complete will be enhanced by the Environment Agency with a view to gaining a greater understanding of flood risk from the canal including flood risk maps relevant to the canal. As a precaution, proposed development adjacent to the canal will require a Flood Risk Assessment to assess any potential risk of flooding from the canal until such a time when results of the modelling are available to demonstrate conclusively that a Flood Risk Assessment is or is not required. The developer should determine the scope and extent of any Flood Risk Assessment to the satisfaction of the Council and Environment Agency. The Environment Agency may determine

that a Flood Risk Assessment is not required, so applicants are encouraged to seek advice at an early stage to clarify the requirement on individual sites potentially impacted by the canal.

- 6.6** Further guidance on the level of detail required for a FRA can be found in the Environment Agency's Flood Risk Assessment Guidance Notes available at <http://www.pipenetworking.com/floodrisk/index.html>

Policy FRD 2

Flood Risk Management in Non- Residential Extensions with a Floor Space up to 250 square metres and Householder Developments

Non-residential extensions with a floor space up to 250 square metres and householder developments proposed in High Flood Risk Zone 3 should be designed and built so that either:

- a. New floor levels will be set no lower than existing levels and flood proofing and resilience measures have been incorporated where practicable; or;
- b. New floor levels will as a minimum, be set at least 300mm above the flood level predicted for the 1:100 year flood event.

Reasoned justification

- 6.7** Householder developments and other extensions are unlikely individually to have a significant impact on flood risk and, as such, will only need to demonstrate that either part a) or part b) of this policy has been satisfied.
- 6.8** For the purposes of this policy, householder development is defined as development of an existing dwelling-house, or development within the curtilage of such a dwelling house, for any purpose incidental to the enjoyment of the dwelling-house.
- 6.9** For the purposes of part a) of this policy, 'existing levels' is defined as:
- i. Ground floor level of the existing building, if creating an extension to a dwelling house or non- domestic property, or;
 - ii. Existing ground level, if creating a separate building within the curtilage of a dwelling house for any purpose incidental to the enjoyment of the dwelling house e.g. standalone garage, swimming pool or summer house.
- 6.10** Advice on flood proofing and resilience measures can be found in 'Improving the Flood Performance of New Buildings - Flood Resilient Construction, ((DCLG), available at: <http://www.communities.gov.uk/publications/planningandbuilding/improvingflood>

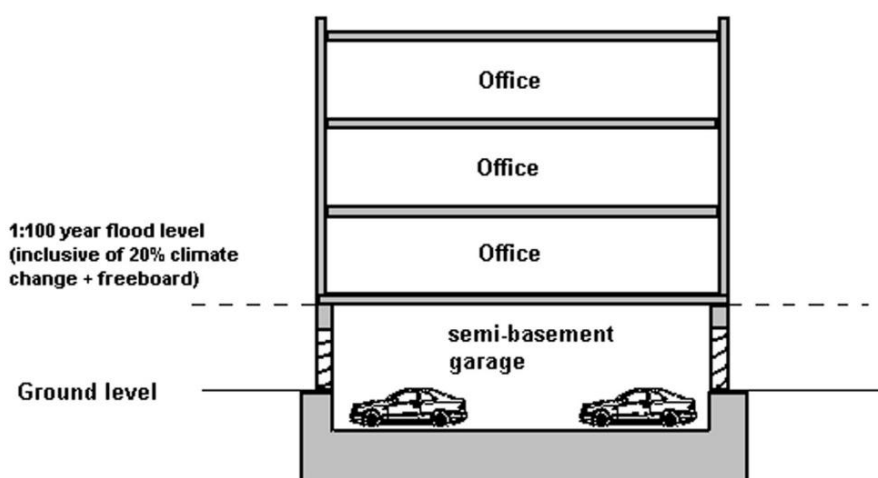
Policy FRD 3

Floor Levels in New Non-Residential Development

All new non-residential development (excluding extensions with a floor space of up to 250 square metres) proposed in High Flood Risk Zone 3 should, as a minimum, be protected from flooding by designing and building floor levels for populated rooms to the flood level predicted for the 1:100 year flood event (including an allowance for climate change and an agreed allowance for freeboard).

Reasoned Justification

- 6.11** Where development is proposed in High Flood Risk Zone 3, it is vital that the potential for loss of life and damage to property as a result of flooding is minimised as far as possible. Raising floor levels of populated rooms e.g. offices, shops, cafes, and workshops to the predicted flood level minimises risk and provides a place of refuge for people in the event of a flood. A garage would be an example of a non-populated part of a development.
- 6.12** For development proposals in the floodplain of the River Irwell, the City of Salford Strategic Flood Risk Assessment (SFRA) can be used to gain a preliminary understanding of the potential depths of flooding a site may face. Developers should contact the Environment Agency (EA) to find out what information is available for use to determine site specific flood levels.
- 6.13** The allowance for climate change is made by increasing modelled peak river flows by 20% as recommended by PPS25.
- 6.14** Freeboard is a safety margin taking into account uncertainties in hydraulic modelling. The EA normally requires a standard 600mm freeboard to be added to the predicted flood water level, as well as an allowance for climate change. However a lesser amount may be agreed with the EA where it can be demonstrated that the standard requirement is not necessary via more refined flood modelling in the Flood Risk Assessment (FRA).



Picture 6.1 Policy FRD3

Policy FRD 4

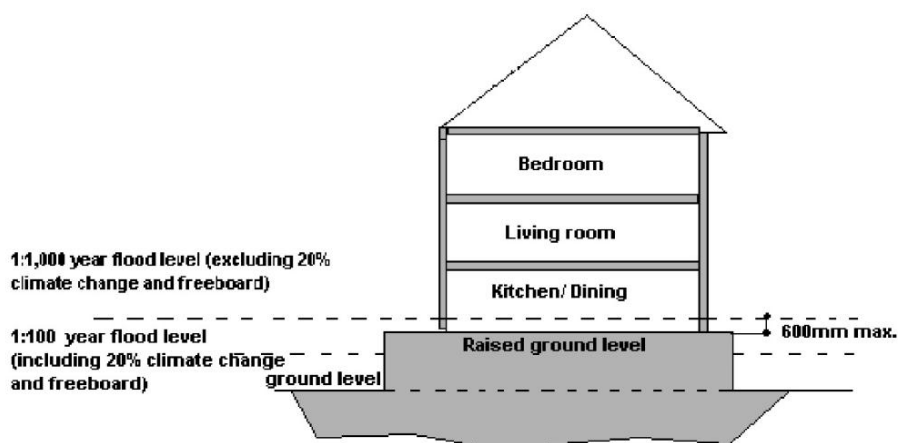
Floor Levels in New Residential Development

New residential development (excluding householder development) proposed in High Flood Risk Zone 3 should be designed and built such that floor levels for habitable rooms and kitchens would be no more than 600mm below the flood level predicted for the 1:1,000 year flood event (excluding climate change and freeboard).

In applying the above standard, no floor level for habitable rooms and kitchens should be below the flood level predicted for the 1:100 year flood event (inclusive of an allowance for climate change and an agreed allowance for freeboard)

Reasoned Justification

- 6.15** The probability of an extreme flood happening in Salford is very low. However it is important that if in the unlikely event of a flood of this magnitude taking place, the risk of damage to people and property is minimised as far as possible. Setting floor levels of habitable rooms and kitchens to no more than 600mm below the flood level predicted for the 1:1,000 year event reduces flooding that could be experienced within new dwellings to a manageable depth.
- 6.16** Where the above standard for floor levels on habitable rooms and kitchens cannot practically be achieved without significantly prejudicing important regeneration proposals (for reasons other than cost), or impacting detrimentally on surrounding land and infrastructure, a reduced standard may be considered. In support of any such application, the developer must be able to demonstrate reasons to justify this relaxation. If the developer is able to provide adequate justification for a reduced standard, the reduced standard shall still be for floor levels of habitable rooms and kitchens to be no more than 600mm below the 1:500 year flood event and flood resilience and flood proofing measures incorporated to enable the residual risk of flooding to be managed to the 1:1,000 year event.
- 6.17** It should be noted that in some circumstances the 1:1,000 year flood level less 600mm could be lower than the 1:100 year flood level inclusive of an allowance for climate change and freeboard. In these circumstances floor levels should still be set above the 1:100 year flood level.
- 6.18** Habitable rooms are living rooms, principal dining areas and bedrooms within houses and flats. It does not include:- kitchens, bathrooms, utility rooms, studies or box rooms. Kitchen areas maybe considered habitable depending on their function within the household. This definition of habitable rooms is based on the definition that appears in the House Extensions Supplementary Planning Document (SPD) adopted 19th July 2006.
- 6.19** Kitchens are generally built using fitted units and appliances and are likely to be one of the most expensive rooms to re-fit following flooding. Consequently it is considered essential to locate kitchens above potential flood levels due to the importance of mitigating them from expensive insurance claims.
- 6.20** The need to raise floor levels does not in any way affect the requirements of the Disability Discrimination Act 1995 in terms of ensuring appropriate disabled access to buildings.



Picture 6.2 Policy FRD4

Policy FRD 5

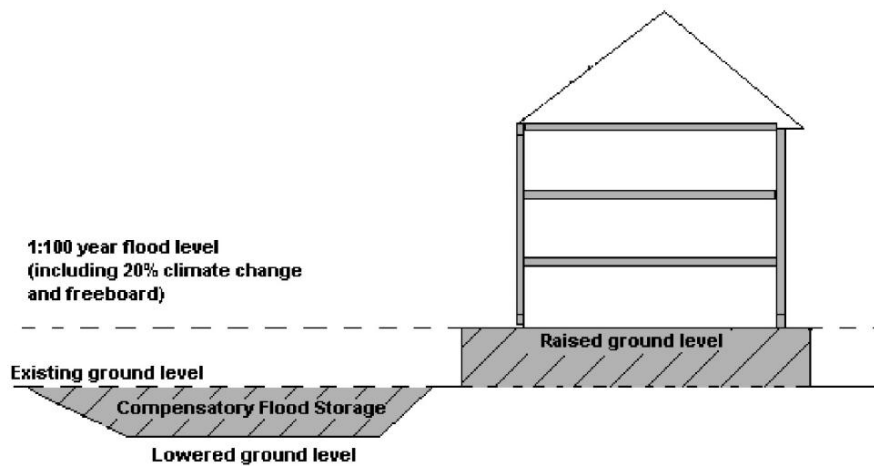
Provision of Flood Storage Capacity within New Development

New development (excluding non-residential extensions with a floor space up to 250 square metres and householder developments) in High Flood Risk Zone 3 should not result in a net loss of flood storage capacity.

If ground levels on which new development is situated have to be raised, it will be necessary to lower ground levels either within the curtilage of the development or elsewhere in the floodplain, in order to maintain at least the same volume of flood storage capacity within the floodplain for the 1:100 year flood event (including an allowance for climate change).

Reasoned Justification

- 6.21** In order to comply with Policies FRD 3, 4 and 8, it may be necessary to raise existing ground levels. This would reduce the total capacity of the floodplain to accommodate floodwaters and increase the risk of flooding elsewhere by either placing existing property already in the floodplain at a higher potential depth of flooding and/or by extending the floodplain to cover properties normally outside the floodplain, unless compensatory flood storage is provided.
- 6.22** Flood storage capacity can be maintained by creating areas of amenity and open space surrounding development, which are lowered below existing ground levels, and by making use of less flood sensitive uses at basement level in development such as car parking facilities.



Picture 6.3 Policy FRD 5

Sources of Further Information

- 6.23 Planning Policy Statement 25: Development and Flood Risk Practice Guide (DCLG) is available at <http://www.communities.gov.uk/publications/planningandbuilding/pps25practiceguide>

Policy FRD 6

Protection of Flood Flow Routes

New development in High Flood Risk Zone 3 (excluding non-residential extensions with a floor space up to 250 square metres and householder extensions) should not have an unacceptable impact on the effectiveness of known linear flood flow routes. Where possible, new development should seek to enhance the effectiveness of flood flow routes and/or be designed to allow permeability to the through flow of water.

Reasoned Justification

- 6.24 Flood flow routes perform the important function of conveying floodwater away from sources of flooding such as rivers and surcharged sewers to land at lower elevations in the floodplain. The City of Salford Strategic Flood Risk Assessment (SFRA) identifies Lower Broughton Road, Great Clowes Street and Clarence Street in Lower Broughton as flood flow routes.
- 6.25 It is important that new development does not obstruct these routes or inhibit their ability to channel water across the floodplain. Where new development might impede these flood flow routes, buildings and public realm works should be designed so that floodwaters can pass through the site unhindered taking into account the safety implications of deep and fast flowing water.
- 6.26 Opportunities should be taken to design flood flow routes in such a way so that they can be used as green infrastructure by using landscaping and planting to enhance biodiversity and encourage recreation activities such as walking and cycling.

- 6.27** Where possible, flood flow routes should be designed to provide green infrastructure that can provide green corridors in urban areas.
- 6.28** Where other flood flow routes in the floodplains across Salford are identified, they too should be protected from obstruction and/or development designed in such a way as to allow their permeability to the through flow of water.
- 6.29** Depending on the degree of flood risk and the scale, nature and location of the proposed development, a Flood Risk Assessment (FRA) should identify any flood flow routes that may affect a proposed development.

Policy FRD 7

Use of Flood Resilient Construction in New Development

New development proposed in High Flood Risk Zone 3 and Medium Flood Risk Zone 2 should be of flood resilient construction up to the flood level predicted for the 1:1,000 year flood event.

Reasoned Justification

- 6.30** Flooding inside dwellings and business premises can cause damage to most interior items including: furniture; walls; wood; fixtures and fittings; electrical goods; MDF or chipboard furniture; floor finishes; and electrical circuitry. The amount of damage to buildings depends mainly on the depth and duration of flooding and floodwater contamination.
- 6.31** It is important that in the event of any flood up to a 1:1,000 year event, damage to buildings is minimised as far as possible by using flood resilient materials and construction techniques that reduce the consequences of flooding and facilitate recovery from the effects of flooding sooner than buildings that use conventional construction methods. Flood resilience can be achieved, for example, by:
- Using solid rather than suspended floors;
 - Using treated timber to resist waterlogging, and/or marine plywood for shelves and fittings;
 - Fitting electric, gas and phone circuits above expected flood levels;
 - Fitting one-way auto-seal valves on WCs;
 - Using water-resistant alternatives to traditional plaster or plaster-boarding for internal wall finishes;
 - Avoiding the use of chip board or MDF;
 - Concentrating living accommodation on the upper floors; and
 - Avoiding fitted carpets.
- 6.32** Basements should not drain directly to the sewerage system due the risk basement flooding as a result of the surcharge and blackflow of sewage. All basements should be drained using pumped systems.
- 6.33** Where a limited depth of flooding is expected, 'flood proofing' measures designed to limit the entry of floodwater into buildings should be considered.

Sources of Further Information

- Matching flood resilient and/ or resistant design strategies with different depths of flooding:
Planning Policy Statement 25: Development and Flood Risk Practice Guide (DCLG) is available at <http://www.communities.gov.uk/publications/planningandbuilding/pps25practiceguide>
- Flood resilience and resistant construction techniques:
CIRIA Flood Resilience Advice Sheets, available at <http://www.ciria.org/>
'Improving the Flood Performance of New Buildings - Flood Resilient Construction, (DCLG), available at <http://www.communities.gov.uk/publications/planningandbuilding/improvingflood>

Policy FRD 8

Provision of Safe Access and Egress Routes in New Development

New development (excluding non-residential extensions with a floor space up to 250 square metres and householder developments) proposed in High Flood Risk Zone 3 should provide safe access and egress routes that are signposted.

Reasoned Justification

- 6.34** It is important that in the event of a flood people are able to be evacuated from buildings to places of safety outside the floodplain and emergency services are able to gain access to buildings to rescue people. When designing and building access and egress routes, developers should consider:
- How access and egress routes in the curtilage of new development will connect with access and egress routes for the wider area;
 - How access and egress will be made from basement and ground floor uses to places of refuge above predicted flood water levels within new development;
 - Whether access and egress routes can be provided to remain dry during the 1:100 year flood event; and
 - Providing 'wet' access and egress routes where the flood hazard is low in terms of depth and velocity in circumstances where dry routes above the predicted 1:100 year flood level cannot practicably be achieved.

Sources of Further Information

- Designing safe access and egress routes:
R&D Technical Report FD 2320/TR2 (DEFRA and EA), Chapter 13, p108 available at http://www.defra.gov.uk/science/Project_Data/DocumentLibrary/FD2320/FD2320_3364_TRP.pdf

Policy FRD 9

Emergency Planning in New Development

Planning applications for new development (excluding non-residential extensions with a floor space up to 250 square metres and householder developments) in High Flood Risk Zone 3 should be accompanied by an Emergency Planning Statement that details how the development will incorporate flood warning and evacuation procedures appropriate to the type and scale of the development and level of flood risk.

Reasoned Justification

- 6.35** A clear and coordinated approach to flood warning and evacuation procedures is essential to ensure that residents in dwellings and employees in business premises are made aware of the actions they need to take in the event of an impending flood.
- 6.36** The Emergency Planning Statement will form part of the Flood Risk Assessment (FRA) and should provide details of how:
- i. flood warning is to be provided; and
 - ii. safe access and egress to and from the development will be ensured (see policy FRD 8)
- 6.37** Preference should be given to connection to the Environment Agency's (EA) Flood Warning System that disseminates warnings via home, business and mobile telephones. EA flood warnings are also disseminated via the Internet, radio and television. Other methods of flood warning could include loud hailers, sirens in buildings, designating residents and employees as flood wardens, and issuing flood awareness packs.
- 6.38** Developers should provide homeowner's contact details to the EA for registration onto the Flood Warning System. Developers and homeowners should contact the EA for further advice about the Flood Warning System.
- 6.39** In drawing up the Emergency Planning Statement, homeowners and developers should be aware of the 'Broughton, Lower Kersal and Charlestown Flood Response Plan' produced by the city council's Emergency Planning Team. The plan identifies the areas of responsibility of each organisation involved in responding to a flood such as evacuation and rescue and provides a framework for efficient liaison between them.

Sources of further information

- Guidance on flood warning and evacuation plans: Planning Policy Statement 25: Development and Flood Risk Practice Guide (DCLG) is available at <http://www.communities.gov.uk/publications/planningandbuilding/pps25practiceguide>
- Roles of organisations responding to flood events: 'Broughton, Lower Kersal and Charlestown Flood Response Plan' (SCC), available from Emergency.planning@salford.gov.uk
- Flooding advice for householders: <http://www.salford.gov.uk/flooding>

Policy FRD 10

Change of Use to Habitable Space

Existing ground floor uses in High Flood Risk Zone 3 and Medium Flood Risk Zone 2 should not be converted into habitable rooms where the flood level predicted for the 1:1,000 year event would result in habitable rooms being flooded to a depth greater than 600mm above floor level.

Reasoned Justification

- 6.40** It is important that people living in flood risk Zones 2 and 3 are not placed at an undue risk of flooding as a result of the conversion of ground floor uses into habitable rooms. Ensuring that flood depths remain below 600mm will help to minimise loss of life and damage to property.
- 6.41** Habitable rooms are living rooms, principal dining areas and bedrooms within houses and flats. It does not include:- kitchens, bathrooms, utility rooms, studies or box rooms. Kitchen areas may be considered habitable depending on their function within the household. This definition of habitable rooms is based on the definition that appears in the Housing Extensions Supplementary Planning Document (SPD) adopted 19th July 2006.
- 6.42** Where the above standard cannot practically be achieved without significantly prejudicing important regeneration proposals (for reasons other than cost), a reduced standard for depths of flooding of no more than 600mm in ground floor habitable rooms for the 1:500 year flood event may be acceptable. In support of the application the developer must be able to demonstrate reasons to justify this relaxation.
- 6.43** Permitted development rights will be removed as required from new development in order to control any proposals to convert ground floor uses into habitable rooms in the future. The conversion of ground floor uses in existing development does not always require planning permission, and therefore may not fall within the controls of the planning system. However property owners are strongly encouraged to have regard to the policy in order to reduce the risk to their own health and safety, and to minimise their clean-up costs in the event of a flood.

Policy FRD 11

Surface Water Drainage Requirements

New development (excluding non-residential extensions with a floor space up to 250 square metres and householder developments) in High Flood Risk Zone 3, Medium Flood Risk Zone 2 and areas that suffer from sewer flooding and/or surface water drainage flooding and new development of 1ha or more in Low Flood Risk Zone 1, should demonstrate that the disposal of surface water from the site will not exacerbate existing flooding.

Sustainable Drainage Systems should be used where practicable, particularly in areas prone to surface water flooding.

Reasoned Justification

- 6.44** New development at risk of flooding should demonstrate that the disposal of surface water from the site does not exacerbate existing flooding from river, sewer and surface water drainage sources. Map 1 in Appendix A depicts areas at risk of river flooding and Map 3 in Appendix A depicts broad locations where sewer flooding and/or surface water flooding have occurred in the past. If a site is located in these areas, developers should contact the city council's Engineering and Highway Division for technical advice on surface water drainage requirements. Contact Nigel Openshaw tel: 0161 779 6110 email: nigel.openshaw@urbanvision.org.uk.
- 6.45** It is important to note that Map 3 only shows areas where there are the highest concentration of incidences of sewer flooding and/or surface water drainage flooding. There will be other areas that suffer from these types of flooding outside the areas identified on Map 3. It is advised that developers should contact the Engineering and Highways Division of the council to discuss surface water drainage for any proposed development.
- 6.46** The city council encourages the use of Sustainable Drainage Systems (SUDS) for the disposal of surface water from new development. A range of SUDS techniques are available which aim to mimic natural drainage processes and manage surface water as close to its source as possible:
- Porous materials - such as permeable concrete blocks, crushed stone and porous asphalt can be used for pavements, driveways and car parks. They encourage rainwater to infiltrate into the ground.
 - Infiltration trenches and soakaways – are stone-filled trenches which promote the slow movement of surface water into the ground. They can be effective for draining highways and are able to remove water pollutants by absorption, filtering and microbial decomposition in the surrounding soil.
 - Rainwater harvesting systems – collect rainwater from roofs for it to be used for flushing toilets, urinals and for watering plants in gardens.
 - Ponds and wetlands – are designed to attenuate surface water by storing peak flows and releasing to the sewer network or watercourse at a controlled rate during and after the peak flow has passed. Ponds and wetlands have value for biodiversity and should be designed and maintained for this purpose as for their value in dealing with surface water drainage.

Sources of Further Information

- General advice on SUDS:
Planning Policy Statement 25: Development and Flood Risk Practice Guide (DCLG) is available at <http://www.communities.gov.uk/publications/planningandbuilding/pps25practiceguide>
CIRIA website - <http://www.ciria.org/suds/>
- Designing SUDS:
The SUDS Manual, CIRIA available at <http://www.ciria.org/downloads.htm>
- Advice on adoption and maintenance of SUDS:
Interim Code of Practice of Practice for Sustainable Drainage Systems, National SUDS Working Group available at <http://www.ciria.org.uk/suds/icop.htm>

7 Determination of Planning Applications

Consultation with the Environment Agency

- 7.1** Where flood risk is a material consideration, the city council will seek the advice of the Environment Agency (EA) before determining a planning application.
- 7.2** The EA have produced a web based facility (Environment Agency Standing Advice Development and Flood Risk - England) to enable local planning authorities to identify which planning applications should be sent to EA offices for direct consultation and which planning applications the local planning authority should determine suitability on behalf of the EA, using the web base Standing Advice.
- 7.3** The key component of the Standing Advice that local authorities should use to determine the above is the interactive Flood Risk Consultation Matrix . A copy of the matrix appears in Appendix D. The top row of the matrix should be used to identify which flood risk zone a development falls within and the side column to identify the development type. The red boxes in the matrix indicate when the planning application should be sent to the EA for consultation and the grey boxes indicate when the local planning authority should provide flood risk comments. Clicking on the text within the grey boxes leads to another web page which provides advice on the types of information applicants should submit to the local planning authority to demonstrate that flood risk has been managed satisfactorily.
- 7.4** For non-residential extensions with a floor space up to 250 square metres and householder developments (see Policy FRD2) the local planning authority should use the Environment Agency Standing Advice to determine the suitability of the proposed development in terms of flood risk.
- 7.5** The checklist in Appendix C can be used to indicate which policies in this draft planning guidance should be applied to new development proposals based on development type and degree of flood risk.
- 7.6** The EA Standing Advice also contains useful guidance notes for developers on the requirements for Flood Risk Assessments which complements the requirements that appear in the Practice Guide to Planning Policy Statement 25: Development and Flood Risk (PPS25).

Call in of Planning Applications

- 7.7** The Town and Country Planning (Flooding) (England) Direction 2007, requires local planning authorities to notify the Secretary of State if they are minded to approve an application for major development despite a sustained objection from the Environment Agency. This provides the Secretary of State with an opportunity to check the application's general compliance with Planning Policy Statement 25: Development and Flood Risk (PPS25) and to consider whether it would be appropriate to call it in for determination.

Consultation with United Utilities

7.8 United Utilities (UU) is responsible for the maintenance and operation of the public sewerage system covering Salford. UU is not a statutory consultee for planning applications. However UU request to be consulted on planning applications where the following applies:

- i. Developments departing significantly from the Local Development Framework.
- ii. Developments extending to more than half a hectare.
- iii. Proposals involving the discharge of trade effluents.
- iv. Agricultural developments that may involve the disposal of effluents.
- v. Proposals involving the use of private wastewater treatment works including septic tanks.
- vi. Proposals for the use of land for the deposit of any kind of refuse or waste.
- vii. Proposals for the use of land as a cemetery.
- viii. Development involving the manufacture, storage or significant use of toxic, corrosive or hazardous chemicals.
- ix. Proposals that involve mineral extraction.
- x. Developments close to UU aqueducts or trunk mains.
- xi. Development close of UU buildings/plant/substations.
- xii. Development on potentially contaminated land.
- xiii. Development close of UU sewer, underground/overhead electric cables.

Consultation with Salford City Council Engineering and Highways Division

7.9 Where proposed development falls within the area identified as being affected by sewer flooding and surface water drainage flooding on Map 3 in Appendix A, it essential that developers contact the council's Engineering and Highways Division to seek technical advice on the disposal of surface water. There will be other areas in Salford not identified on Map 3 in Appendix A that suffer from sewer flooding and surface water flooding. Therefore it is advised that any development proposals involving the drainage of surface water should seek the advice of the Engineering and Highways Division. Contact Nigel Openshaw tel: 0161 779 6110 email: nigel.openshaw@urbanvision.org.uk.

Pre-Planning Application Discussion

7.10 The city council operates a 'Development Team' service that offers early advice to developers on their proposals for new development before a planning application is submitted. The process ensures that developers are aware of which consents are required for proposed development as well as planning policy advice to identify any potential problems or pitfalls at an early stage and suggests potential solutions where these are available.

- Further information about the Development Team can be found at: <http://www.salford.gov.uk/devteamapproach.htm>

8 Useful Contacts

8.1 Queries in relation to this planning guidance should be directed to:

Alex McDyre
Planning Officer
Spatial Planning
Housing and Planning Directorate
Salford City Council
Civic Centre, Chorley Road
Swinton
M27 5BY

Tel: 0161 793 3797
Fax: 0161 793 3667

Email: alex.mcdyre@salford.gov.uk

8.2 Further information on surface water drainage requirements:

Nigel Openshaw
Group Engineer
Engineering and Highways
Urban Vision
Emerson House
Albert Street
Eccles
M30 0TE

Tel: 0161 779 6110
Fax: 0161 797 6006

Email: Nigel.openshaw@urbanvision.org.uk

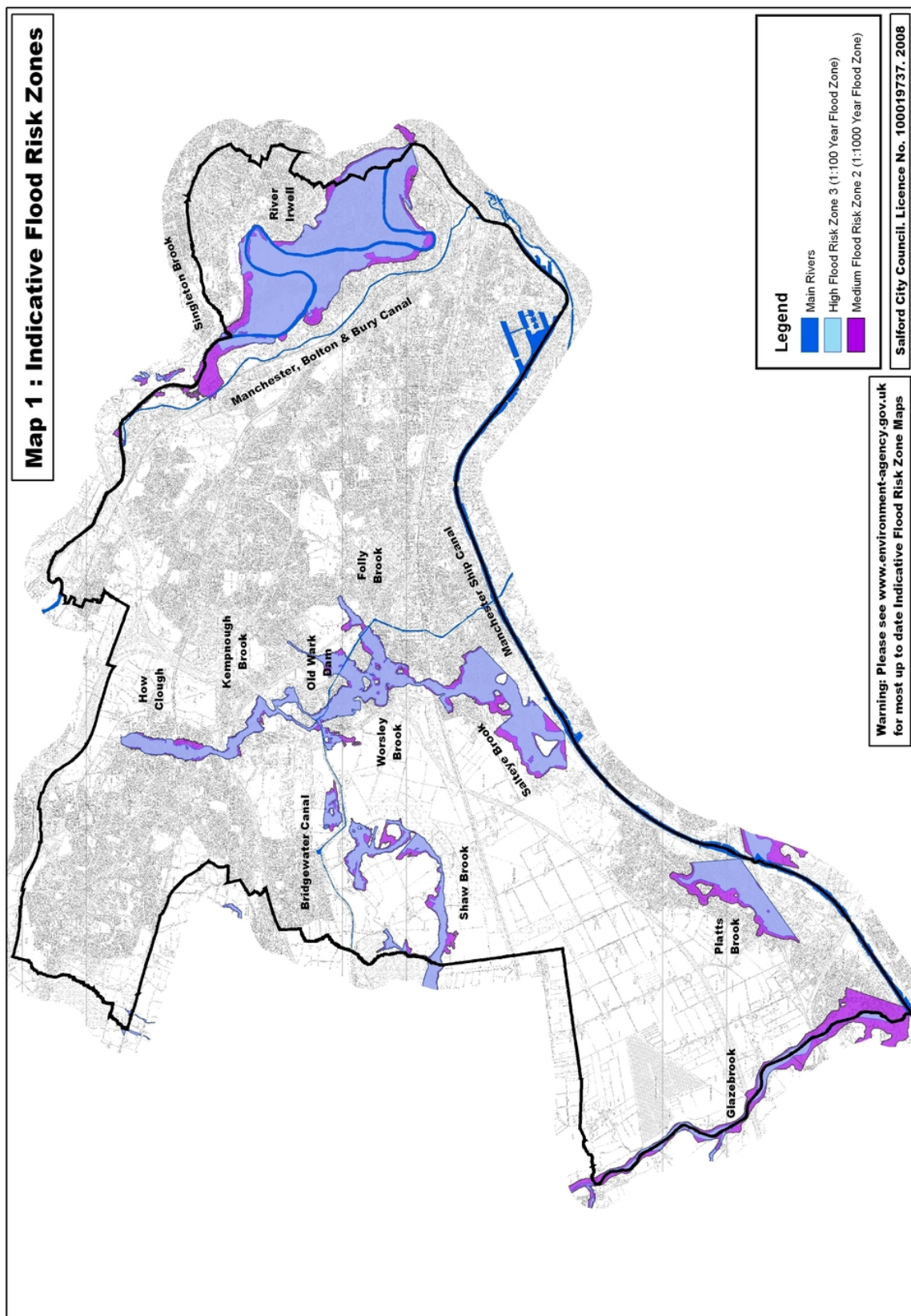
8.3 Environment Agency contact details:

Mark Chadwick
Planning Liaison Team Leader
Appleton House
430 Birchwood Boulevard
Warrington
Cheshire
WA3 7WD

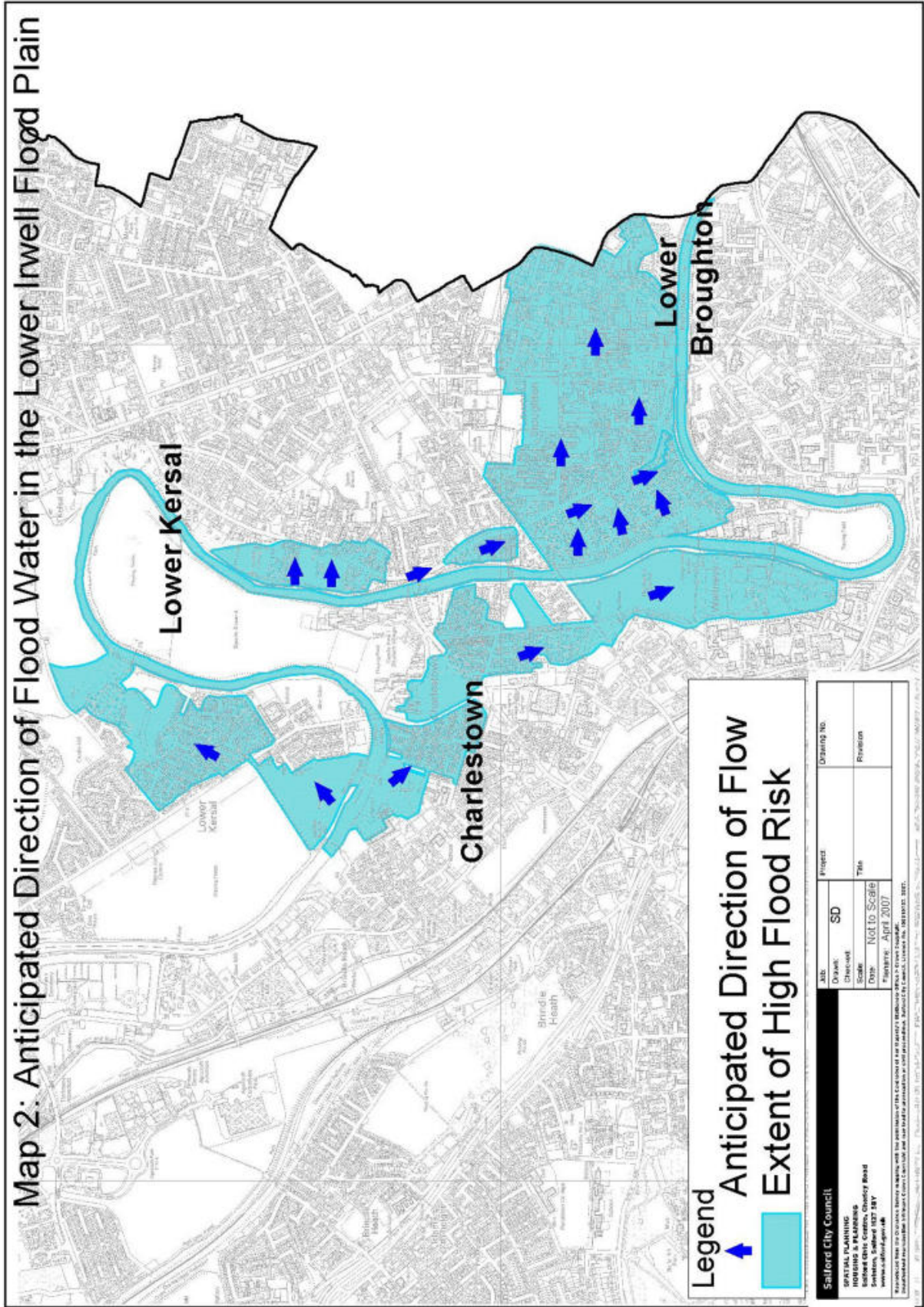
Tel: 01925 543 342

Email: mark.chadwick@environment-agency.gov.uk
Web address: www.environment-agency.gov.uk

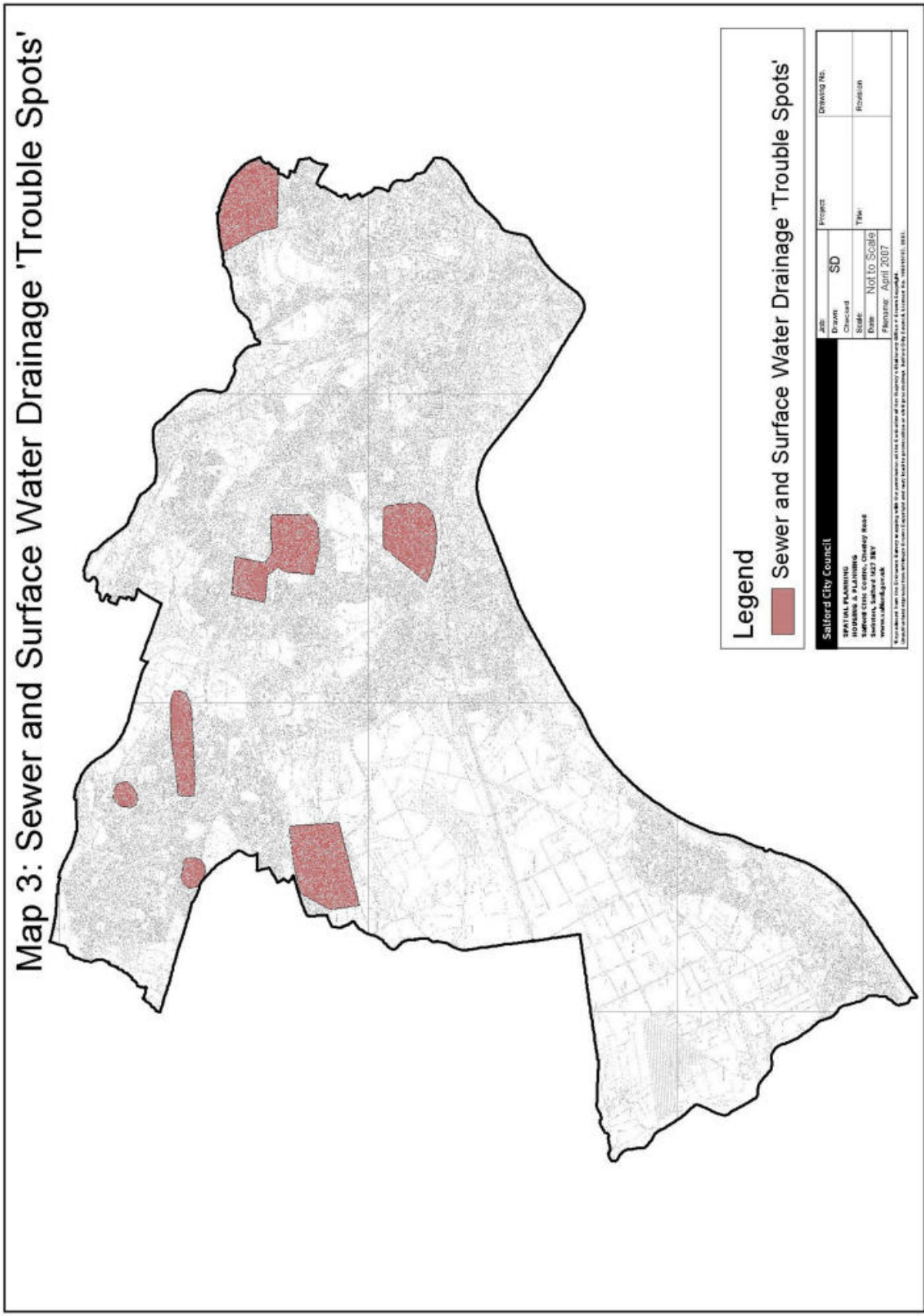
A Maps



Map 1. Indicative Flood Risk Zones



Map 2. Anticipated Direction of Flood Water in the Lower Irwell Flood Plain



Map 3. Sewer and Surface Water Drainage 'Trouble Spots'

B Glossary

Term	Acronym	Definition
Access and Egress Routes		Means of escape before or during a flood to places of safety.
Climate Change Allowance		An allowance made for the increase in flood risk as a result of climate change that is added to peak river flow modelling in flood risk assessments, usually 20%.
Compensatory Flood Storage		A flood storage area introduced to compensate for the loss of flood storage capacity resulting from raising ground levels.
Critical Ordinary Watercourse	COW	A water course that is known to have caused flooding or is perceived to pose a flood risk not designated as a 'main river'
Combined Sewer Overflow	CSO	A structure that permits the controlled release of water from the combined underground foul and surface water drainage system when the pipe capacity is exceeded.
Construction Industry Research and Information Association	CIRIA	Body that aims to promote best practice in the construction industry.
Department of Environment, Food and Rural Affairs	DEFRA	Government department responsible for environmental protection amongst other responsibilities.
Department of Communities and Local Government	DCLG	The current Government responsible for planning.
Development Team Approach	DTA	Pre-planning application discussion procedure.
Environment Agency	EA	Agency which implements the Government's environmental responsibilities including flood defence and flood warning.
Floodplain		Any area of land over which water flows or is stored during a flood event or would flow but for the presence of defences.
Flood Resilience		Methods of building design which allow buildings to recover faster than conventional buildings after a flood
Flood Resistance/Proofing		Methods of building design which limit the entry of flood water into a building.
Flood Risk Assessment	FRA	A detailed site-based investigation of flood risk that is undertaken by the developer at planning application stage.
Freeboard		A 'safety margin' to account for uncertainties in flood level predictions and structural performance of defences.
Flood Risk Zones		Areas of land divided up into zones having a high, medium, or low probability of flood risk. High Flood Risk Zone 3 is the area of land having a 1:100 year chance of flooding or greater. Medium Flood Risk Zone 2 is the area of land having between a 1:100 year and 1:1000 year chance of flooding. Low Flood Risk Zone 1 is the area of land outside Zones 3 and 2.

Habitable Rooms		Habitable rooms are living rooms, principal dining areas and bedrooms within houses and flats. It does not include:- kitchens, bathrooms, utility rooms, studies or box rooms. Kitchen areas may be considered habitable depending on their function within the household. This definition is based on the definition that appears in the House Extensions Supplementary Planning Document (SPD) adopted 19th July 2006.
Local Development Framework	LDF	A series of planning documents which sets the spatial development of the city over a 10-20 year period.
Local Development Scheme	LDS	A document which sets out the planning policy documents a local authority intend to produce during a 3 year period.
Main River		A watercourse managed and maintained by the Environment Agency using their permissive powers.
Mitigation Measure		A deliverable solution that will assist in the effective management (reduction) of risk to property and life as a result of flooding e.g. flood defences, flood storage, raised floor levels and flood warning.
Office of the Deputy Prime Minister	ODPM	Former Government Department responsible for planning.
Planning Policy Statement 25: Development and Flood Risk	PPS25	The Government's statement of national planning policy in relation to flood risk.
Residual Risk		The flood risk that remains after implementation of a mitigation measure.
Regional Spatial Strategy	RSS	A planning document which sets the development framework for a region over a 10-20 year period.
Supplementary Planning Document	SPD	A statutory planning document which expands upon a Development Plan Document or Unitary Development Plan policies.
Salford City Council	SCC	Local authority for city of Salford.
Strategic Flood Risk Assessment	SFRA	The assessment of flood risk on a catchment-wide basis for proposed development for a district.
Standard of Protection	SoP	The return period to which properties are protected against flooding.
Standing Advice		Planning application consultation procedure with the Environment Agency.
Sustainable Drainage Systems	SUDS	Methods of surface water drainage that seeks to mimic natural drainage patterns.
Unitary Development Plan	UDP	A planning document which sets the development framework for the city over a 10-20 year period (gradually being superseded by the Local Development Framework).
1:100 year floodplain		The area of land expressed as having a chance of flooding once in every 100 years, but which can take place in any given year. It is an expression of magnitude of a flood.

Glossary

1:1000 year floodplain	The area of land expressed as having a chance of flooding once in every 1000 years, but which can take place in any given year. It is an expression of magnitude of a flood.
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C Flood Risk and Development Planning Checklist

Flood Risk and Development Planning Guidance Checklist

The following table should be used to check which policies in this planning guidance should be applied to new development proposals based on development type and degree of flood risk.

Policy	Non-residential extension < 250 m ² and householder development		Other new Development		New Development greater than 1 ha in Low Flood Risk Zone 1	New Development in areas suffering from sewer an surface water flooding
	High Flood Risk Zone 3	Medium Flood Risk Zone 2	High Flood Risk Zone 3	Medium Flood Risk Zone 2		
FRD 1 Flood Risk Assessments	Y	Y	Y	Y	Y	
FRD2 Householder and non-residential extensions with a floor space of 250 m ² or less	Y					
FRD3 Floor levels in non-residential development			Y			
FRD4 Floor levels in residential development			Y			
FRD5 Flood storage capacity			Y			
FRD6 Flood flow routes			Y			
FRD7 Flood resilience construction			Y	Y		
FRD8 Access and egress routes			Y			
FRD9 Emergency planning			Y			
FRD10 Change of use	Y	Y	Y	Y		
FRD11 Surface water drainage requirements			Y	Y	Y	Y

D Environment Agency Flood Risk Consultation Matrix

Environment Agency		Development and flood risk: when to consult the Environment Agency					March 2007
		A1 Development category	B1 Development (including boundary walls etc.) within 20 metres of the top of a bank of a Main River	C1 Includes culverting or control of flow of any river or stream	D1 Within Flood Zone 3	E1 Within Flood Zone 2	F1 Within Flood Zone 1
A2 Householder development and alterations	B2 Consult EA Note	C2 Consult EA with FRA showing design details of any culvert or flow control structure proposed	D2 No consultation - see standard comment Note	E2 No consultation - see standard comment Note	F2 No consultation - No EA Advice		
A3 Non-residential extensions with a footprint of less than 250m ²	B3 Consult EA Note	C3 Consult EA with FRA showing design details of any culvert or flow control structure proposed	D3 No consultation - see standard comment Note	E3 No consultation - see standard comment Note	F3 No consultation - No EA Advice		
A4 Change of use FROM Water Compatible TO 'Less Vulnerable' development	B4 Only consult EA if site also falls within Flood Zone 3. FRA Required	C4 No consultation - no EA advice	D4 Consult EA with FRA	E4 No consultation - no EA advice	F4 No consultation - No EA Advice		
A5 Change of use RESULTING IN 'Highly Vulnerable' or 'More Vulnerable' development	B5 Only consult EA if site also falls within Flood Zone 3 or 2. FRA Required	C5 No consultation - no EA advice	D5 Consult EA with FRA	E5 Consult EA with FRA	F5 No consultation - No EA Advice		
A6 Operational development less than 1 hectare	B6 Consult EA	C6 Consult EA with FRA showing design details of any culvert or flow control structure proposed	D6 Consult EA with FRA and Sequential Test Evidence (and where required confirm Exception Test has been applied)	E6 Consult EA with FRA and Sequential Test Evidence (and where required confirm Exception Test has been applied)	F6 No consultation - No EA Advice		
A7 Operational development of 1 hectare or greater	B7 Consult EA	C7 Consult EA with FRA showing design details of any culvert or flow control structure proposed	D7 Consult EA with FRA and Sequential Test Evidence (and where required confirm Exception Test has been applied)	E7 Consult EA with FRA and Sequential Test Evidence (and where required confirm Exception Test has been applied)	F7 Consult EA with FRA		

Salford City Council

Spatial Planning

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