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Non-Technical Summary

It is now widely recognised that whilst we can’t always prevent flooding occurring, we can manage the risks of it happening and reduce the consequences when flooding does happen. It is therefore important to consider flood risk management, rather than assuming that increased flood defences are always an effective solution.

Pro-active land use planning has a key role to play in flood risk management as it is one of the few activities that can result in the avoidance of flood risk as opposed to other activities that can only hope to reduce it. National planning policy sets out a hierarchical approach, where avoidance of vulnerable development in high risk zones must take priority. Only where avoidance is not possible, mitigation of the risks through a variety of techniques should be used. This approach should be underpinned by flood risk assessment at all levels of planning, and for all major developments is critical to inform the decision making process.

The response of the Council and other agencies to flood risk is at three levels:

- Putting in place measures to respond to future flood events (e.g. Emergency Planning).
- Putting in place specific initiatives to reduce the likelihood and/or impact of future flood events (e.g. capital works to improve flood defences).
- Developing a strategic framework to address flood risk in the long term. This Supplementary Planning Document (SPD) will form an integral part of this framework.

The Council has also produced Strategic Flood Risk Assessment, which is an important piece of evidence base both for the development of policy, but also in the consideration of individual proposals. It provides an overview of the nature and extent of flooding within the borough.

When applying for planning permission, it is the responsibility of the applicant to provide the necessary information to allow the Council to carry out the Sequential Test. In broad terms, this information will need to demonstrate that there are no other reasonably available (i.e. suitable, developable and deliverable) sites where the development could be located. It is therefore advisable to consider the Sequential Test, and the wider requirements in relation to flooding, at the earliest opportunity and pre-application discussions with the Council are encouraged.
1 Introduction

1.1 Flooding is a natural process that can happen at any time in a wide variety of locations. It presents a risk when people, buildings, cultural and environmental heritage and/or infrastructure are present in the area which floods. Climate change predictions are that flood risk will increase, due to more frequent and more severe storms bringing higher intensity rainfall and increasing run-off from land and buildings.

1.2 It is now widely recognised that whilst we can’t always prevent flooding occurring, we can manage the risks of it happening and reduce the consequences when flooding does happen. It is therefore important to consider flood risk management, rather than assuming that increased flood defences are always an effective solution.

1.3 Pro-active land use planning has a key role to play in flood risk management as it is one of the few activities that can result in the avoidance of flood risk as opposed to other activities that can only hope to reduce it. National planning policy (Planning Policy Statement 25 or PPS25) sets out a hierarchical approach, where avoidance of vulnerable development in high risk zones must take priority. Only where avoidance is not possible, mitigation of the risks through a variety of techniques should be used. This approach should be underpinned by flood risk assessment at all levels of planning, and for all developments is critical to inform the decision making process. PPS25 sets out the different types of flood zones, as shown in the table below.

<table>
<thead>
<tr>
<th>Zone</th>
<th>Probability of Flooding</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low Probability</td>
<td>This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (&lt;0.1%).</td>
</tr>
<tr>
<td>2</td>
<td>Medium Probability</td>
<td>This zone comprises land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding (1% – 0.1%) or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5% – 0.1%) in any year.</td>
</tr>
<tr>
<td>3a</td>
<td>High Probability</td>
<td>This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (&gt;1%) or a 1 in 200 or greater annual probability of flooding from the sea (&gt;0.5%) in any year.</td>
</tr>
<tr>
<td>3b</td>
<td>The Functional Floodplain</td>
<td>This zone comprises land where water has to flow or be stored in times of flood.</td>
</tr>
</tbody>
</table>
The Council’s Response to Flooding

1.4 Managing and reducing flood risk is one of the key challenges facing Doncaster today. We are working closely with our partners to manage and reduce the risks posed to existing communities by flooding (the roles of different bodies are summarised within PPS25).

1.5 The response of the Council and other agencies to flood risk and the wider water environment is at three levels.

- Putting in place measures to respond to future flood events (e.g. Emergency Planning);

- Putting in place specific initiatives to reduce the likelihood and/or impact of future flood events (e.g. capital works to improve flood defences). These are guided by the Corporate Flood Policy, which was published in 2005; and;

- Developing a strategic framework to address flood risk in the long term, and ensure responsible management and use of the water environment. This Supplementary Planning Document (SPD) will form an integral part of this framework.

1.6 However, it is unlikely that the development, especially employment and housing, needed to deliver Doncaster’s economic growth and regeneration can be accommodated within the borough without further development within areas potentially vulnerable to flooding. This means that a balance needs to be achieved between avoiding future flood risk, and achieving the wider economic, social and environmental aspirations of the borough.

Water quality

1.7 A key driver in relation to the management of the wider water environment is the Water Framework Directive. This requires the Environment Agency to work with partners (including Local Authorities) to improve water quality. This is consistent with the Eco-Systems approach currently being promoted by DEFRA, whereby a holistic approach is taken to managing the environment. This is particularly important in terms of flooding and water, where the approach for farming, wildlife, recreation, flood risk management and improving water quality can be complimentary.

1.8 Although the focus of this SPD is predominantly flooding, it is important that consideration is given to the wider water environment and opportunities to both address flood risk whilst also improving water quality, such as those provided by some forms of Sustainable Drainage Systems.
Why produce a Supplementary Planning Document?

1.9 Four Interim Planning Position Statements were adopted by Full Council in February 2008, setting out how applications would be dealt with in light of the existing Unitary Development Plan but also newer policies such as national policy statements. These included a broad approach to flooding in relation to housing and employment proposals.

1.10 Subsequent to the publication of these, it became apparent that more detailed guidance in relation to flood risk was required to deal with day-to-day Development Management Work (and in particular more minor or specialist applications). Therefore, a guidance note was published in November 2008. The guidance note has been endorsed by the Environment Agency as best practice and the Council’s approach has been successfully defended at appeal on a number of occasions.

1.11 However concerns have been raised that the application of national policy through the guidance note did not allow enough flexibility to ensure that local aspirations and issues were addressed; including both the regeneration of deprived communities and delivery of associated homes and jobs, but also a pragmatic approach to the consideration of flood risk in relation to smaller developments. It was therefore considered appropriate to amend the guidance and to adopt it as a Supplementary Planning Document.
2 Flooding in Doncaster

2.1 With an area of 225 square miles and a population of over 300,000, Doncaster is the largest metropolitan borough in the UK and is one of three sub-regional centres within the Sheffield City Region. It enjoys excellent access to the communications network where important rail and road routes intersect at the centre of key east/west and north/south axes of connectivity, providing access to major trade routes. Large areas of the Doncaster borough are rural in nature with the largest land use being agriculture. There are few remote areas but the dispersed settlement pattern causes problems for connectivity to the main urban area of Doncaster and primary job locations.

2.2 Land within the borough is subject to many environmental constraints with large areas in the north east being vulnerable to flooding, and the countryside in the Western half of the borough is Green Belt. Doncaster also has many sites of biodiversity interest with varying levels of protection from local sites to national statutory sites of scientific interest and areas of international importance, such as Thorne and Hatfield Moors in the north-east of the borough. The moors contain the rare lowland raised mire habitat and the protected species of nightjars.

2.3 The Council has produced an initial Level 1 Strategic Flood Risk Assessment, which is an important piece of evidence base both for the development of policy, but also in the consideration of individual proposals. It provides an overview of the nature and extent of flooding within the borough. More detailed evidence base is being developed for areas with pressure for development and particular flood risk issues (a level 2 Strategic Flood Risk Assessment). The need for further evidence will be kept under review, in co-operation with other bodies such as the Environment Agency.

2.4 Doncaster borough is served by two main river systems or catchments: the river Don in the west (including the rivers Dearne, Ea Beck and Went) and the river Trent in the east (which includes the rivers Idle and Torne, Hatfield Waste Drain, Diggin Dyke and Soak Drains).

2.5 The river Don has a long history of flooding, notably the events of 1947 and, more recently, 2007 (although it should be noted that surface water flooding was a significant issue in the 2007 occurrence).

2.6 The river Trent and its catchment covers parts of the north-east, South and South East corner of Doncaster and is characterised by very flat modified rivers and drains (constructed to reclaim large areas of low lying land) and the presence of flood defences, as this is an area at high risk of flooding.

2.7 Doncaster has more than 65.2 kilometres of ordinary watercourses (i.e. excluding main rivers) for which the council is the relevant operating
authority along with a number of internal drainage boards. The borough also has over 15 kilometres of critical ordinary watercourses such as drains, dykes and brooks. Although they have historically not been classified as "main rivers", they are deemed to be critical because they have the potential to put large numbers of people and property at risk of flooding if not properly maintained.

2.8 As well as the river systems, Doncaster also contains the Sheffield & South Yorkshire, Stainforth & Keadby and New Junction canals. These are relevant within overall consideration of flooding as discharges into canals (e.g. surface water discharge), has the potential to impact on the structural integrity of the waterway and affect navigation. Furthermore, such discharges can also have an impact on water levels and pose a flood risk.

2.9 The Doncaster area has been subjected to coal mining which has left a legacy, including in relation to the water environment. This has the potential to lead to issues where water recovers to natural levels following cessation of pumping - although it should be noted that the Coal Authority, in conjunction with the Environment Agency and other local coal mining interests, is developing a strategic forward plan to minimise the risk of re-emerging minewater causing flooding and/or water quality problems in the area. In addition, there are numerous dedicated minewater drainage pathways within Doncaster and these could be blocked or diverted by ground stabilisation works associated with new developments. This could, in turn, cause minewater problems elsewhere. It is therefore important that new development proposals take account of these issues, and applicants should take advice and introduce appropriate mitigation measures where necessary. Information on these issues can be obtained from the Coal Authority at www.coal.gov.uk and the Coal Authority’s permission should be sought for any works that would intersect, disturb or enter any coal seams or coal mine workings.

2.9 Large areas of the borough are located in areas at moderate or high risk of flooding, this includes parts of the main urban area of Doncaster, Mexborough, Conisbrough, Sprotbrough, Kirk Sandall, Bentley, Toll Bar and other small settlements in the north and central parts of the borough and smaller areas associated with the rivers Don and Dearne in the west and the Torne in the south (flood zones 2 and 3). Areas such as Bentley, Arksey and Toll Bar, which are low lying, were originally marshland and current arrangements for managing flood risk rely on raised defences, upstream storage and pumped drainage. The 2007 floods illustrated that surface water flooding can be an issue for other settlements not within the Environment Agency Flood zones 2 or 3, including Bawtry, Tickhill and, to a lesser extent, Rossington.

2.10 In summary, flooding in Doncaster is largely attributed to (amongst other things):
• the nature of the river systems within the borough which form part of the lower sections of the river Don. Consequently, floodwaters from the upper reaches of the river Don basin, such as Sheffield and Rotherham, travel downstream towards Doncaster as the topography changes. This is exacerbated by increased urbanisation of the Don upstream catchment and major channel modifications made to the lower Don through navigation works in past centuries;

• the low lying and flat nature of the landscape, parts of which are located within the tidal floodplain (up to Kirk Sandall);

• large parts of the borough lies below sea-level and form part of Humberhead levels;

• increasing surface water run off / drainage, particularly within heavily urbanised areas of the borough (although increasing developments contain measures to address this issue through controlled discharges of surface water); and;

• the effects of climate change are exacerbating the risk of flooding through potential rising sea levels, increased winter rainfall and the occurrence of more extreme rainfall events.
Map 1: Settlement Distribution

Please note that this map is included for illustrative purposes only. Proposals will be assessed in light of the most recent and accurate information.
Map 2: Don & Trent catchments (from Doncaster SFRA)
3 Policy Context

National Policy

3.1 Planning Policy Statement 1 (PPS1), sets out the overarching planning approach to deliver sustainable development. It indicates that policies should take account of flooding, including flood risk and ensure that developments are ‘sustainable, durable and adaptable’ including taking into account natural hazards such as flooding.

3.2 The supplement to PPS1, Planning and Climate Change, sets out how the planning system should address climate change. One of the predicted impacts of climate change is more intense periods of rainfall and consequent flooding. The PPS 1 supplement requires Local Development Frameworks to promote sustainable communities that are resilient to such effects.

3.3 Planning Policy Statement 25: Development & Flood Risk (PPS25) is the key document in relation to flooding, and a material consideration in the determination of planning applications (in other words if it is not taken into account, planning decisions are open to legal challenge). PPS25 places various requirements on Local Planning Authorities, including:

- Requiring detailed site-specific flood risk assessments to show new developments are safe
- The application of a sequential test to proposals in flood risk areas (to demonstrate that they could not be built elsewhere in a lower flood risk area).

3.4 The PPS25 sequential approach underpins the development of the Local Development Framework (LDF), and as such the sequential test is not required at the planning application stage for sites which are allocated within the LDF. However, where a site is allocated in a development plan which pre-dates PPS25, the sequential test must be applied on a case-by-case basis at the planning application stage.

3.5 The national publication, “Planning Policy Statement 25: Development and Flood Risk: Practice Guide” is a useful source of information and case studies on the interpretation of national flood policy. This SPD has been produced having regard to the latest version of the guide, but as the guide is regularly reviewed and updated, specific paragraphs and quotes are not included within the SPD to avoid confusion.

Environment Agency Strategies

3.6 The Environment Agency is required to produce Catchment Flood Management Plans (CFMPs). They set out long-term strategic actions
for the management of flood risk within the relevant area, to be implemented by the environment agency and other key organisations, such as local authorities. Two CFMPs will contain actions for Doncaster: the Don and the Trent. These have both been published previously for consultation, and the environment agency propose further consultation in 2010. As noted previously, the flood risk faced by Doncaster is influenced by decisions on how the upper parts of the catchment outside Doncaster’s administrative boundary are managed – including the land-use and management decisions. Therefore the CFMP plays an important role in addressing these catchment-wide issues.

Local Policy

3.7 Joint working is key to achieving the common aspirations as set out in the Local Area Agreement (LAA) and Sustainable Borough Strategy. Doncaster’s LAA includes NI189 (Flood and coastal erosion risk management) as a local indicator.

3.8 Doncaster Council also produced a Policy Statement on Flood and Coastal Erosion Risk Management (November 2005) that provides a public statement on the Council’s approach to the management of flood defences in its area.

3.9 The Council operates under the Land Drainage Act 1991, which gives Local Authorities permissive powers to address drainage issues, but normally the Council does not directly manage or maintain any watercourse within its district except in default of the relevant riparian owner. Doncaster MBC acknowledges and supports the Government’s aims and objectives for flood and coastal erosion risk management. In particular it will:

- Encourage the provision of adequate and cost effective flood warning systems
- Encourage the provision of adequate, economically, technically and environmentally sound and sustainable flood defence measures
- Discourage inappropriate development in areas at risk from flooding and coastal erosion

Unitary Development Plan

3.10 The Unitary Development Plan was adopted in July 1998 and forms the Statutory Development Plan for Doncaster. Although the age of a plan is not, in itself, grounds for considering it out-of-date, it is acknowledged that there are a number of policies which have been produced since its adoption. Most relevant of these is the national policy on flooding which is considered throughout this SPD. However, there are also a number of policies within the UDP which remain relevant to flooding and these are set out below.
SPU 3: Development proposals will be required to take account of the need to secure effective land drainage measures.

The supporting text states,

“land-drainage provision within the Borough is important as there is a need to protect the ground water supply from pollution; to ensure that development does not adversely affect flood drainage; and, in general, to ensure that any development does not create land drainage problems” (paragraph 14.21).

PU 5: New development will normally only be given planning permission where adequate means of disposal of foul sewage and surface water are demonstrated. Where such means do not exist, the developer may be required to contribute to the provision of this in association with the relevant water company.

PU 6: Development will not be acceptable where there is likely to be a detrimental effect on a watercourse or river corridor.

PU 7: The Borough Council will oppose the use of open flow balancing facilities for individual sites, and will only consider such facilities on a catchment wide basis.

PU 8: Development will not be permitted in designated washlands where it would adversely affect the function of the washland, and where there was a serious risk to the development from flood debris or pollution.

PU 9: Development proposed within areas vulnerable to flooding shown on the proposals map will be required to comply with special conditions relating to floor levels and layout.

The supporting text states,

“Some areas of the Borough are low lying and the drainage pattern has in places been affected adversely by subsidence. Whilst the river channel through Doncaster is unable to cater for a flood in excess of a 1 in 38 year event, substantial flood defence measures have been taken with large volumes of washlands introduced. The washland system installed upstream of Doncaster is able to reduce flood flows from 1 in 150 years down to 1 in 38 year event through the town. If a flood of a greater magnitude than a 1 in 150 year event is experienced or flood defences breached, then the areas shown as PU9 on the proposals maps will flood to varying depths, dependent on the intensity of prevailing conditions. Floor levels of new buildings constructed in the areas vulnerable to flooding should be raised to no lower than 500mm above frontage road level or 600mm above existing site levels or the 5.0 metre AOD contour whichever is the higher. All such development proposals will be the subject of consultation with the Environment Agency” (paragraph 14.33).
Although there are these indicative levels set out the supporting text for policy PU9, detailed guidance, based on the up-to-date Strategic Flood Risk Assessment, is included within this SPD in Appendices 3-5 which sets out how the policy will be implemented.

| PU 10: The Borough Council will seek to prevent pollution of, and improve the quality of, rivers and streams to the highest possible standard, and will continue to support the environment agency and urge others to achieve and maintain a satisfactory standard |
| PU 11: The Borough Council will support the management and improvement of the drainage network only as a means of protecting buildings from flooding. Support for such works will only be given where it can be demonstrated that every opportunity has been taken to enhance nature conservation and where appropriate, public access and recreation. |

Local Development Framework

3.11 The emerging Local Development Framework will eventually replace the Unitary Development Plan. The first Local Development Framework document will be the Core Strategy, which will provide the strategic overview for development in Doncaster from 2011-2026. It is intended that once the Core Strategy is finalised, this SPD will be re-adopted to formally sit underneath it.
4 Aims and Objectives

**Aim:** To provide a robust and transparent approach to managing flood risk within Doncaster, that acknowledges the need to facilitate the regeneration of deprived communities across the borough, and takes account of national policy.

4.1 The focus of national policy is to avoid new developments within flood risk areas where possible; however there are local aspirations (supported by evidence base) that highlight the need to regenerate deprived communities, many of which are within flood risk areas. The challenge is therefore to allow enough growth and qualitative change within these communities to achieve regeneration, without underlining the overall approach of avoiding new developments within flood risk areas, where possible. It is also important that the existing flood risk for Doncaster is proactively managed, so that new development does not increase the impact of flooding on the surrounding area, and serves to reduce the overall flood risk of the borough.

**Objective 1:** To ensure that all new developments are safe from flooding, and do not increase the risk of flooding elsewhere.

4.2 It is important that new developments take account of up-to-date information and site based Flood Risk Assessments to understand the nature of site specific flood risk. Measures must be identified and implemented to effectively address this risk.

**Objective 2:** To ensure that the pattern of development reflects the role of Doncaster as a Sub-Regional Town and the potential roles of Thorne, Mexborough, Conisbrough, Adwick-le-Street, Armthorpe and Askern as Principal Towns.

4.3 Doncaster is the main centre of the borough; however Doncaster has a number of other towns and villages which all have a role to play. The LDF Core Strategy will set out in more detail the role of all Doncaster’s settlements and what level and type of developments would best address local aspirations and issues. However, in the local evidence base, including the South Yorkshire Settlement Study, indicates that, along-side the Main Urban Area\(^2\), there are six towns which would benefit from generic housing and employment growth (as Principal Towns). The SPD therefore reflects these six potential Principal Towns, but will be revised and updated once the Core Strategy is adopted, to ensure it takes account of the role of all Doncaster’s settlements (see Section 6).

**Objective 3:** To ensure that housing renewal schemes contribute to the effective management of flood risk within affected areas.

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\(^2\) The Main Urban Area includes Doncaster Town Centre, Balby, Hexthorpe, Wheatley, Intake, Bessacarr, Cantley, Edenthorpe, Kirk Sandall, Bentley, Scawthorpe, Scawsby, Richmond Hill
4.4 Housing Renewal Schemes focus on addressing failing housing markets, many of which are within existing flood risk areas. It is therefore important that rather than discouraging them from addressing these issues within affected areas, they are encouraged to ensure that the schemes maximise opportunities to reduce the impact of future flood events (including flood resilience measures).

**Objective 4: Ensure that local companies are able to proactively manage flood risk so that it does not become a barrier to their retention and growth within Doncaster.**

4.5 The 2007 floods had an impact on Doncaster’s economy. Where firms within flood risk areas have been able to overcome the impacts of the floods, and wish to consolidate or expand their business within Doncaster, this should be encouraged and seen as an opportunity to reduce the flood risk of existing sites. The SPD therefore sets out circumstances in which employment sites can be extended or redeveloped without the need or a sequential test, and also provides guidance on how, where a Sequential Test is required, it should take account of both local issues but also the operational requirements of employment proposals.

**Objective 5: To maximise the efficient use of existing flooding and drainage infrastructure, including maximising opportunities to enhance the quality or condition of flood defences.**

4.6 Although much of Doncaster benefits from defences, there may be opportunities to enhance them and/or address more localised issues, for example in relation to surface water. However, whilst it is acknowledged that development can bring with it potential contributions to flood defence works (including improving existing defences) it is not the remit to set the detail of developer contributions (such as Commuted Sums attached to planning permissions).

**Objective 6: To maximise the wider environmental benefits of developments in relation to flood risk.**

4.7 Measures used to address flooding issues can have wider benefits. For example the use of Sustainable Drainage Systems, such as Green Roofs, can also be beneficial in relation to landscaping and biodiversity. It is also important that the water environment is considered holistically, and therefore opportunities should be taken to enhance water quality and to reduce overall water consumption, to conserve the water resources within the aquifers.
5 Planning Application Assessment Process

5.1 The Sequential Test and the Exception Test will be used to assess the suitability of land for development within areas of flood risk. However, it is the responsibility of the applicant to assemble the relevant evidence for their site to allow us to assess these tests as part of the planning application (see appendix for a pro forma which applicants may wish to use in presenting the information). In the context of Doncaster, this means that:

- it is the role of the local authority case officer to apply and be satisfied with the Sequential Test (and Exception Test where required);

- it is the role of the applicant to provide information to allow the case officer to apply the Sequential Test (and Exception Test where required);

- the Environment Agency are consulted in line with the requirements of the General Procedure Order. Whilst they will not normally scrutinise the Sequential Test for planning applications, they will highlight to the LPA where it is required by PPS 25. The Environment Agency will only contribute directly to the scrutiny of the Sequential Test process for those developments where the flood risks are particularly high, the development is particularly large or vulnerable, or where it is clear that the Sequential Test has either not been applied properly or where it has clearly failed; and;

- the Environment Agency will work in partnership with Doncaster Council (as the Local Planning Authority) at a strategic level, to ensure a consistent and rigorous application of national planning policy, as set out in Planning Policy Statement 25.

- As with all planning issues, local residents and communities have the opportunity to put forward their views. By presenting information in a clear and accessible way, applicants can help their proposals be better understood and help to address potential concerns.

5.2 In the following sections of this guidance note, detailed advice is provided for each of the stages summarised below.
## Figure 1: Summary of Planning Application Assessment Process

### A Is the proposal within a flood risk area?

| YES: Go to B | NO: Sequential and Exception Tests will not be required but applicants will still need to consider the size and nature of development and potential requirement for Site Specific Flood Risk Assessments/Drainage Plans (e.g. a Flood Risk Assessment is needed for all developments over 1 hectare in size). |

### B Does the proposal require a sequential test?

| YES: Go to C | NO: Sequential and Exception Tests are not required but a Site Specific Flood Risk Assessment is required. |

### C Does the Sequential Test indicate that the development could be located in an area of lower flood risk than the flood risk of the proposed site?

Within this stage, applicants/developers must undertake the following steps:
- identify key evidence, such as the Strategic Housing Land Availability Assessment; Employment Land Review or a Market Search
- identify appropriate area of search;
- identify potential sites within area of search; and
- developer to explain why potential sites should be discounted.

| NO: Go to D | YES: If the development could be located in area of lower flood risk then it has failed the Sequential Test and planning permission should be refused. |

### D Given the type of development and the level of flood risk is an Exception Test required?

| YES: Go to E | NO: Go to F |

### E Does the development meet all elements of the Exception Test?

| YES: Go to F | NO: Exception Test failed; planning permission should be refused |

### F Does the site specific Flood Risk Assessment indicate that the site can be made safe without exacerbating flood risk elsewhere?

| YES: Planning Permission can be granted, assuming any other non-flooding issues are resolved | NO: The development is not safe; planning permission should be refused |
A Is the proposal within a flood risk area?

5.3 Flood zones are the starting point for the **Sequential Test**. National planning policy (PPS25) identifies three types of flood zone. These are:

- Flood Zone 1 (low probability);
- Flood Zone 2 (medium probability); and
- Flood Zone 3 (high probability).

5.4 The overall aim of the Sequential Test is to steer new development to Flood Zone 1. Where this is not possible, reasonably available sites within Flood Zone 2 should be considered. However, only where there are no reasonably available sites within Flood Zones 1 or 2 should sites within Flood Zone 3 be considered. In applying the Sequential Test, proposals for development should take into account the flood risk vulnerability of land uses (see table 2 overleaf) and the more vulnerable uses such as housing should not be located within areas at high risk.

5.5 Flood Zones 2 and 3 are shown on the Environment Agency’s Flood Map. These maps give an initial indication of risk and are the starting point for the application of the Sequential Test. It should be noted that Doncaster’s Strategic Flood Risk Assessment (published in 2009) represents a snap-shot of the flooding information at a given point in time. In contrast, the Environment Agency’s Flood Maps are updated quarterly. Whilst we will endeavour to keep the Strategic Flood Risk Assessment up-to-date for information on the flood zones, applicants/developers should always refer to the Environment Agency’s Flood Map.

5.6 However, these flood zones refer to the probability of sea and river flooding only (ignoring the presence of existing defences). Doncaster’s Strategic Flood Risk Assessment is therefore an important tool in assessing other sources of flooding and local drainage issues, and also giving consideration to the presence of flood defences and other flood risk management infrastructure. This information will be particularly important when considering the relative risk at alternative sites.

5.7 The Strategic Flood Risk Assessment maps present theoretical scenarios and are a tool for understanding the degrees of risk within high flood risk areas, primarily for Doncaster’s Local Development Framework. In addition these maps, when viewed as a whole, may provide a useful context for Site Specific Flood Risk Assessments.

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3 Flood Zone 3 is split into two subcategories: a) areas of high probability and b) the functional floodplain (i.e. land where water has to flow or be stored in times of flood).

However, such assessments will also need to use other sources of more detailed information, such as sites-specific modelling. The Strategic Flood Risk Assessment maps are only accurate to a scale of 1:10,000 and therefore more detailed work will be required as part of the site based flood risk assessment.

5.8 In each of these flood zones, new development should be directed to sites at the lowest relative probability of flooding. Where the Environment Agency’s Flood Map identifies the site within Flood Zone 1 a Sequential Test will not normally be required unless local drainage issues exist (for example it is known that the site has flooded during recent events). However, where a site is identified within the Environment Agency’s Flood Zones 2 or 3, a Site Specific Flood Risk Assessment will normally be required. Developments over a hectare in size within Flood Zone 1 will also require a Site Specific Flood Risk Assessment to evaluate their impact on surface water flooding.

5.9 If an applicant or developer believes that a particular location is at lower flood risk than the Environment Agency’s Flood Map suggests they would be advised to contact the Environment Agency (External Relations Team) in the first instance, who will consider their comments and advise on the formal procedure which must be undertaken to challenge the maps. Any challenge to the Environment Agency’s Flood Maps will need to comply with the relevant policy and modelling requirements, details of which can be found at http://www.environment-agency.gov.uk.

5.10 The Environment Agency is a statutory consultee with the power to request that the Secretary of State considers calling in an application, which the Local Authority propose to grant against their advice, to the secretary of state to ensure that flooding issues are fully addressed (see Circular 02/09: The Town and Country Planning (Consultation) (England) Direction 2009).

5.11 Where development is granted planning permission within Environment Agency Flood Risk Zones 2 or 3, the following informative will be added to the decision letter:

At the time of this decision, the site has been identified as being within an area of medium or high flood risk, based on the Environment Agency’s flood maps. Therefore, the applicant/occupants should consider registering for the Environment Agency’s Floodline Warning Direct, by phoning Floodline on 0845 988 1188. This is a free service that provides flood warnings direct by telephone, mobile, fax or pager. It also gives practical advice on preparing for a flood, and what to do if one happens. By getting an advanced warning it will allow protection measures to be implemented such as moving high value goods to an elevated level as well as evacuating people off site.
B Does the proposal require a sequential test?

5.12 A proposal will normally only need to meet one of the categories set out in table 2 below to avoid the need for a Sequential Test. However, where a proposal involves different elements, each of the significant elements of the proposal will need to individually meet one of the categories below to avoid the need for a Sequential Test. If significant elements of the proposal do not meet one of the categories below, then a sequential test will be required. In these circumstances it will be necessary to consider whether the test is applied to the proposal as a whole, or to individual elements (see the guidance on Mixed Use developments under part C of the Sequential Test process).

<table>
<thead>
<tr>
<th>Table 2: Forms of development that do not require the Sequential Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Changes of use</strong></td>
</tr>
<tr>
<td>Where a change of use proposal does not involve operational development a Sequential Test will not be required.</td>
</tr>
<tr>
<td>Where a change of use proposal involves only minor operational development, which would not create additional living space or operational floor space, a Sequential Test will not be required. For example where a change of use which involves only a new external staircase or shop-front will not require a Sequential Test,</td>
</tr>
<tr>
<td>However, proposals for a change of use which require other operational development will require a Sequential Test.</td>
</tr>
<tr>
<td><strong>Minor development</strong></td>
</tr>
<tr>
<td>Minor development does not require the Sequential or Exception Test and is defined in PPS25 (footnote 7) as:</td>
</tr>
<tr>
<td>• minor non–residential extensions and industrial/commercial/leisure extensions with a footprint less than 250 square metres;</td>
</tr>
<tr>
<td>• alterations: development that does not increase the size of buildings (e.g. alterations to external appearance);</td>
</tr>
<tr>
<td>• ‘householder’ development (e.g. sheds, garages, games rooms etc) within the curtilage of the existing dwelling - in addition to physical extensions to the existing dwelling itself. This definition excludes any proposed development that would create a separate dwelling within the curtilage of the existing dwelling (e.g. subdivision of houses into flats); and</td>
</tr>
</tbody>
</table>
applications for minor development still have to meet the requirements set out in Annex D of PPS25 in relation to strategic flood risk assessments and flood risk reduction.

**Subdivision of dwellings**

Although the subdivision of a house into flats is specifically excluded from the definition of minor development (except where no significant external alterations are required) it would be viewed as a change of use application, and change of use applications do not require a Sequential Test, as clarified above. So, for example, the conversion of a barn into a dwelling or the subdivision of a dwelling into two or more dwellings does not require a Sequential Test as long as it does not involve significant alterations/extensions.

**Replacement dwelling(s)**

Replacement dwelling(s) (excluding housing renewal schemes – see below) will not require a Sequential Test provided they:

- will not be placed at an unacceptable level of flood risk, irrespective of the risk posed to the existing dwelling;
- do not increase the number of dwellings in an area of flood risk (i.e. replacing a single dwelling with an apartment block); and
- do not significantly increase the footprint and/or occupancy of the building (as a guide an increase of more than 20% of the original building – i.e. without extensions – would not normally be supported without a Sequential Test)

The principles for replacement dwelling(s) will also be applied to new applications on sites that have existing unimplemented permissions (i.e. it is still valid). For proposals on sites with lapsed permissions a Sequential Test will be required.

**Housing renewal (including pathfinder)**

Proposals for housing renewal schemes which are part of recognised housing renewal programmes will not require a Sequential Test provided they will not be placed at an unacceptable level of flood risk, irrespective of the risk posed to the existing dwelling(s).

Opportunities within the site to minimise flood risk through site layout and design should be taken. Furthermore, if applicable, the Exceptions Test will still need to be applied.

Current housing renewal areas include:

- the Doncaster Housing Market Renewal Pathfinder (schemes within Mexborough, Conisbrough, Denaby and Edlington); and;
• the Green Corridor (schemes within Highfields, Adwick/Woodlands, Carcroft/Skellow and Askern) Council Housing Strategy renewal priorities (schemes within Thorne, Stainforth and Doncaster Main Urban Area - Six Streets).

See Map 3: Housing Renewal Areas

### Proposals for demolishing and redeveloping existing non-residential buildings for alternative uses

Proposals for demolishing and replacing existing buildings (other than housing market renewal areas) will not require a Sequential Test provided that:

- the proposed use is the least vulnerable viable use (in the context of PPS25) and will be appropriate for the site having regard to other relevant policies (e.g. the applicant should explain why housing rather than other uses such as employment has been proposed); and;
- they demonstrate significant improvements in resilience to flooding and the new site layout maximises the use of lower risk areas within the site; and;
- the resultant development would not result in a footprint that is significantly greater than the existing building (or buildings) i.e. as a guide beyond 20% of the original building; and;
- the building has been vacant for at least 5 years; or
- the building has been marketed for at least 12 months for its current use, and there has been no interest in reusing or redeveloping the building.

The reasoning behind this approach is based on local circumstances. Bringing empty buildings back into beneficial use is an essential part of the council’s drive to regenerate deprived and run down areas of the borough and improve people’s quality of life as set out in the Doncaster Sustainable Borough Strategy (see www http://www.doncaster.gov.uk). Doncaster borough has a relatively high proportion of derelict or vacant buildings due to its industrial nature and mining heritage.

Opportunities within the site to minimise flood risk through site layout and design should be taken. Furthermore, if applicable, the Exceptions Test will still need to be applied.

Proposals to redevelop vacant or derelict land which does not contain existing buildings will be required to undertake the Sequential Test.

### Redevelopment of existing industrial, leisure and commercial (including retail) sites for similar uses

Proposals for the redevelopment of existing industrial, leisure and commercial (including retail) sites (for alternative industrial, leisure or commercial uses) will not require a Sequential Test provided they
demonstrate significant improvements in resilience to flooding and the new site layout maximises the use of lower risk areas within the site. For clarity, any net increase in the amount of new floor space created will not trigger the need for a Sequential Test provided that these other requirements are met.

**Extensions to existing industrial, leisure and commercial (including retail) sites**

Proposals to expand existing industrial, leisure and commercial (including retail) sites which are over 250 square metres in extent will require the Sequential Test (see ‘minor development’ above), unless it can be demonstrated that they will be operationally linked to the existing development and will incorporate adequate flood mitigation measures (including flood resilience).

Such proposals may include additional buildings or extensions within the curtilage of an existing site (for example to provide a staff canteen) and/or the extension of the site area (for example to provide additional vehicle storage).

However, proposals to extend or intensify sites or units to allow additional and separate uses within an existing site will be required to undertake a Sequential Test.

**Wind farms**

Proposals for wind turbines/farms are considered to be Water Compatible development and will not require a Sequential Test. However, a Site Specific Flood Risk Assessment will still be required, and should consider how they can remain operational during times of flooding.

**Quarries**

PPS25 states that sand and gravel quarries are classified as Water Compatible development. Therefore, they will not require a Sequential Test provided a Site Specific Flood Risk Assessment demonstrates that proposals minimise flood risk (including taking account of impacts of surface water). The logic for this approach is that Sand & Gravel can only be worked where they are found.

PPS25 indicates that other minerals working and processing operations are classed as Less Vulnerable, so would normally require a Sequential Test. However, Doncaster also has other valuable mineral resources, such as industrial and aggregate limestone, clay, coal and coal-mine methane. Like Sand & Gravel, these other minerals can also only be worked where they are found. On this basis, the same approach will be taken as for Sand & Gravel quarries provided that a site specific Flood Risk Assessment shows that the proposals will not increase flood risk, and that surface water will be managed.
Other Minerals and Waste Development

Other minerals and waste development which is more akin to industrial development will be treated as such for the purposes of this SPD. However, where it can be demonstrated that the proposal needs to be located within a quarry or landfill for operation reasons (such as landfill gas extraction plant) a sequential test will still be required, however the area of search may be reduced to the boundary of the existing site.

Developments only partially within flood zones

A Sequential Test will not be required where:

- only a small part of the site lies within Flood Zone 2 or 3 and will not be used for hard development (e.g. only used for soft landscaping); or
- the proposed development will create fewer than 10 dwellings (including flats) or less than 1000 square metres commercial floorspace and only the access lies within Flood Zone 2 or 3 (although a Flood Risk Assessment covering the issue of Access and Egress will still be required).

In all cases, the layout of the development, informed by a site specific Flood Risk Assessment, should minimise flood risk.

The sequential test may still be required where the site specific flood risk assessment, informed by the Strategic Flood Risk Assessment, indicates a larger area of flooding than shown by the Environment Agency Maps.

5.12 The above list is based on the practical implications of certain types of developments, and takes account of where it is likely to be impractical to suggest that there are more suitable sites elsewhere. The inclusion of this list, which includes more detail than PPS25, is intended to provide certainty and consistency to the application of national policy at the local level and to take account of local circumstances.

5.13 Proposals that are within flood risk areas, or over 1 hectare in size, will require a Site Specific Flood Risk Assessment as part of the planning application, even if they do not require a Sequential Test (thus changes of use can require a Flood Risk Assessment). As part of this, it is important that developments (including replacement buildings) can be made safe, and flood risk adequately minimised and managed. This may include considering the layout of sites where the level of flood risk varies across the site. In cases where only the access to the site is at risk from flooding, the Site Specific Flood Risk Assessment will need to clearly show how emergency access would be gained in the event of flooding and how the proposal will deal with issues of ‘islanding’ (e.g.
the footprint of the house lies within Flood Zone 1 but the access arrangements lie within a higher risk flood zone)⁵.

5.14 It is important to note that the Exception Test will be applied after the Sequential Test, and only then once the Sequential Test has been passed. However, the potential for a development to pass the Exception Test does not remove the requirement to pass the Sequential Test.

⁵ A planning appeal was dismissed on the grounds that the applicant had failed to demonstrate that the access to the site would be safe in the event of flooding (APP/Y2620/A/08/2091490)
Map 3: Housing Renewal Areas (Doncaster Housing Strategy 2008)
Does the sequential test indicate that the development could be located in an area of lower flood risk than the flood risk of the proposed site?

5.15 At this stage of the Sequential Test process, applicants/developers should undertake the following steps:

- identify key evidence such as the Strategic Housing Land Availability Assessment;
- identify appropriate area of search;
- identify potential sites within area of search; and
- explain why potential sites should be discounted.

5.16 The Site Specific Flood Risk Assessment does not form part of the Sequential Test unless it constitutes a successful challenge to the Environment Agency’s Flood Zone Map or where it is used to demonstrate the relative risk of sites within the same Flood Zone, and where it is used to facilitate a sequential approach to site layout.

Key Evidence Base

5.17 It is important that the key evidence base to be used to inform the consideration of flood risk, and the application of policy, is identified and agreed as early in the process as possible. Pre-application discussions are therefore recommended to ensure that information available from the Council is highlighted (e.g. published studies such as the Strategic Housing Land Availability Assessment and the Employment Land Review), and any new information to be provided as part of the application, such as a Market Search, is discussed.

What is the Area of Search for Alternative Sites?

5.18 The area of search is the geographical area within which the development could be located. Where a Sequential Test is required, the area of search needs to be determined. This SPD sets out what the area will normally be in many circumstances, although the applicant/developer may need to provide information to justify a certain approach. All developments are expected to bring at least some economic, social and/or environmental benefit (or would be likely to fail against other policies), however the potential for a proposal to respond to local aspirations and issues may be relevant. The information supplied by the applicant will allow the Local Authority to assess the Sequential Test when considering the planning application.

5.19 The Sequential Test must take into account local circumstances relating to the catchment area for the proposed development, as set out below. It is therefore important to clarify the ‘area of search’ at the pre-application stage. The area of search will normally apply to the whole borough. However, the following principles should be noted.
The Area of Search for housing proposals will vary as set out in Table 3 below.

**Table 3: Area of Search for Housing Proposals**

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Search Area</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single residential properties proposed within existing residential areas (as defined in the Unitary Development Plan)</td>
<td>Elsewhere within the same town or village (settlement boundaries as defined on the UDP Proposals Map)</td>
<td>Very small scale infill, a form of “Windfall” development.</td>
</tr>
<tr>
<td>Other Housing proposals anywhere in the Borough that lie within a residential policy area (as defined in the UDP)</td>
<td>Elsewhere within the same town or village (settlement boundaries as defined on the UDP Proposals Map)</td>
<td>Generally small-scale (infill) proposals. Sometimes referred to as “Windfall” sites i.e. sites that are not specifically allocated for housing;</td>
</tr>
<tr>
<td>Housing proposals within the Main Urban Area of Doncaster or Thorne, Mexborough, Conisbrough, Adwick-le-Street, Armthorpe or Askern but not within a residential policy area</td>
<td>Elsewhere within the same town (UDP settlement boundaries); The Main Urban Area extends from Bentley to Bessacarr/Cantley and from Balby/Hexthorpe to Edenthorpe/Kirk Sandall Alternatively an applicant can chose to extend the area of search to the whole Borough as below.</td>
<td>The evidence base justifies these locations as areas for growth. These can be larger housing proposals either on land allocated for housing in the UDP or windfalls on land allocated for other purposes e.g. employment; in the latter case these are departure applications and will raise other policy issues.</td>
</tr>
<tr>
<td>Housing proposals within towns other than Doncaster, Thorne, Mexborough, Conisbrough, Adwick-le-Street, Armthorpe or Askern (and within villages with UDP boundaries) but not within a residential policy area</td>
<td>Towns and villages across the whole Borough but within settlement boundaries defined in the UDP</td>
<td>As above. This is a Borough-wide area of search excluding land designated as green belt or countryside policy area.</td>
</tr>
<tr>
<td>Housing proposals on land designated as green belt or countryside policy area (except for agricultural and similarly justified)</td>
<td>Proposals would be contrary to other policies. Bespoke search area to be agreed with Local Authority.</td>
<td>Some small villages are washed over with such designations</td>
</tr>
</tbody>
</table>
- The area of search for retail development will normally be within the same town, district or local centre in which it is located (i.e. where a retail area is defined in the Doncaster Unitary Development Plan – e.g. Commercial Policy Areas). However, where a settlement does not have a retail area defined in the UDP and the proposed use would be appropriate within a local centre, the area of search will be elsewhere within the same settlement. In other cases (e.g. out-of-town or supermarkets proposed in settlements without a defined retail area) the area of search for retail development will apply to the whole borough.

- The area of search for office development should be applied in the following three stages (to take account of the approach as set out in national planning policy relating to employment and town centre uses).
  - Doncaster town centre (designated in the UDP as a Shopping and Office Policy Area).
  - Mexborough and Thorne town centres (the UDP Commercial Policy Areas).
  - Other town centres (as identified within the UDP Commercial Policy Areas)

- For other employment uses proposed on UDP allocations (including strategic employment sites) the area of search will normally be within the same settlement (although regard will be had to the exact nature and requirements of proposals). For strategic distribution sites, which will require good access to the motorway network, the area of search will be elsewhere within the A1, A1(M), M18 and M180 corridors.

- The area of search for proposals within Doncaster town centre (as defined in the UDP) with ground floor retail, leisure and/or office uses and apartments above will be elsewhere within Doncaster town centre. The area of search for other mixed use proposals will depend on the nature of the uses proposed and the extent to which they are linked. Developers will therefore need to provide justification as to why mixed-use schemes should be considered as a single proposal if they do not wish the uses to be disaggregated for the purposes of the Sequential Test.

- For all other proposals the area of search will be the whole borough. However, paragraph 4.16 of PPS25 states: “...for developments with a clear catchment, for example, a school, hospital or doctor’s surgery, the catchment area could form the area of search”.

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<table>
<thead>
<tr>
<th>single dwellings)</th>
<th>Replacement dwellings and housing renewal schemes</th>
<th>Sequential Test not required provided certain conditions are met</th>
<th>See 5.11 above for detail</th>
</tr>
</thead>
</table>

5.20 Where entire areas and villages are within a high risk flood zone, it would clearly be unreasonable to prevent all development in those areas. The good practice guide on flooding acknowledges that whilst approximately 90% of England’s land area is Flood Zone 1, and so at a strategic level choices can be made, at a more local level there will be areas where existing communities are predominantly within Flood Zones 2 and 3 and a level of development is needed to sustain them. Within Doncaster, there are a number of settlements significantly within Flood Risk Zones 2 and 3, including Thorne, Hatfield & Stainforth, Moorends, Barnby Dun and Fishlake; and significant parts of settlements such as Mexborough, Adwick and Doncaster Main Urban Area. The approach for residential development areas of search acknowledges this issue.

5.21 Doncaster is the main centre of the borough, however Doncaster has a number of other towns and villages which all have a role to play. The LDF Core Strategy will set out in more detail the role of all Doncaster’s settlements and what level and type of developments would best address local aspirations and issues. However, in the local evidence base, including the South Yorkshire Settlement Study, indicates that, along-side the Main Urban Area, there are six towns which would benefit from generic housing and employment growth (as Principal Towns). The SPD therefore reflects these six potential Principal Towns, but will be revised and updated once the Core Strategy is adopted, to ensure it takes account of the role of all Doncaster’s settlements (see Section 6). This approach therefore justifies a smaller area of search in certain circumstances.

What are Reasonably Available Sites?

5.22 Once it has been determined that a proposal for development requires a Sequential Test and the area of search has been identified, the next stage is to identify reasonably available sites within areas of lower flood risk. It should be noted that a recent appeal decision stated that: “The fact that the appellant personally has no alternative sites within her ownership does not have a bearing on the application of the policies of PPS25 in the public interest”.

5.23 Although appeal decisions themselves should not be used as the basis for developing policy, there are a number of recent appeal decisions where the Inspector has considered that regardless of whether the site Specific Flood Risk Assessment is acceptable, if the Sequential Test is failed the application will not be in compliance with PPS25.

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6 A copy of the appeal decision (APP/F4410/A/08/2076016) can be found at http://www.doncaster.gov.uk/about/chamber/5Creports5C281008prp6ap3.pdf
Housing

5.24 In Doncaster borough, reasonably available sites for housing development consist of unimplemented planning permissions and UDP allocations without permission; these are set out in the Council’s published annual Residential Land Availability Report (although these are not broken down by Flood Zone) and any other sites identified by a proposal specific market search. The Council also regularly publishes a five-year deliverable land supply statement that identifies some additional suitable, available and achievable residential sites. This document also identifies which flood zone each housing allocation is in and identifies a greater than 5 year supply of deliverable housing land on sites in flood zone 1 (or with permission).

5.25 Proposals for a site which is within an area at higher risk of flooding than the allocations (and any other identified sites without planning permission) included within the five-year deliverable land supply statement, will therefore need to successfully challenge the statement e.g. demonstrate that there is not in fact a 5 year supply of deliverable land.

5.26 Developers will be expected to consider all alternative sites to accommodate the number of houses proposed, including larger sites and whether a number of smaller sites could be used to accommodate the development.

Housing within Doncaster Main Urban Area and the Principal Towns

5.27 However, if the area of search is limited to main urban area of Doncaster or Thorne, Mexborough, Conisbrough, Adwick-le-Street, Armthorpe or Askern the overall amount of housing will be irrelevant (as there are no settlement specific targets at present) and therefore applicants/developers will need to consider whether there are reasonably available sites within a lower flood risk zone within the same settlement. In these circumstances, sites with unimplemented planning permission can be discounted (including where development has not commenced). This means that if the only remaining UDP housing allocations (i.e. without planning permission) within the main urban area of Doncaster or Thorne, Mexborough, Conisbrough, Adwick-le-Street, Armthorpe or Askern are within Flood Zone 3, all infill development in the same settlement within Flood Zones 2 and 3 will usually pass the Sequential Test, unless a Market Search or other evidence reveals lower risk sites within the search area.
Windfall housing development within a Residential Policy Area

5.28 Windfall housing proposals within Residential Policy Areas are likely to be small-scale developments, possibly including infill and back-land development. Alternative sites will therefore comprise sites of a similar size which are currently being marketed (or have been marketed within the last 6 months). Sites with planning permission can be discounted.

5.29 There are a number of settlements with Unitary Development Plan allocations within flood risk zones 1 and/or 2, and the potential for infill Windfall housing proposals within Residential Policy Areas within higher flood risk zones. Given the nature of these smaller developments, if required to consider considerably larger sites they are unlikely to pass the Sequential Test. Whilst infill developments (without planning permission) are not included within either the Strategic Housing Land Availability Assessment or the 5 year Deliverable Housing Land Supply Statement, they have historically provided a contribution to Doncaster’s housing supply. Such developments can play an important role in maintaining steady housing supply, as well as supporting local business, especially noting the current economic challenges. As set out in Section 6, the impact of this Supplementary Planning Document will be monitored, and reviewed and updated as required.

5.30 In summary alternative sites to be considered are as set out in Table 4.

Table 4: Alternative Sites for Housing Proposals

<table>
<thead>
<tr>
<th>HOUSING PROPOSAL</th>
<th>SITES TO CONSIDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single residential properties proposed within existing residential areas (as defined in the Unitary Development Plan)</td>
<td>Sites at lower risk of flooding within the settlement limits of that town or village which are also suitable for a single residential property and which are currently being marketed (including sites which were taken off the market less than 6 months prior to the application). Sites with planning permission can be discounted.</td>
</tr>
<tr>
<td>Housing proposals anywhere in the Borough that lie within a residential policy area (as defined in the UDP)</td>
<td>Sites at lower risk of flooding within the settlement limits of that town or village of a similar size which are currently being marketed (including sites which were taken off the market less than 6 months prior to the application). Sites with</td>
</tr>
</tbody>
</table>
| Housing proposals within the Main Urban Area of Doncaster or Thorne, Mexborough, Conisbrough, Adwick-le-Street, Armthorpe or Askern but not within a residential policy area | If narrowing search area to that town then sites at lower risk of flooding within the settlement limits of that town that can (individually or in combination) accommodate that development. These will include housing allocations and other available, suitable and achievable sites as identified in the 5 year deliverable land statement but can exclude sites with permission.

If search area is whole Borough then need to demonstrate less than 5 years deliverable housing land supply across the Borough on sequentially preferable sites and sites with permission (as set out in the 5 year land statement) |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing proposals within towns other than Doncaster, Thorne, Mexborough, Conisbrough, Adwick-le-Street, Armthorpe or Askern (and within villages with UDP boundaries) but not within a residential policy area</td>
<td>Need to demonstrate less than 5 years deliverable housing land supply across the Borough on sequentially preferable sites and sites with permission (as set out in the 5 year land statement)</td>
</tr>
</tbody>
</table>

**Employment (including waste)**

5.31 Reasonably available sites for employment uses are identified in the Doncaster Employment Land Availability Study (based on undeveloped UDP allocations). This is an annual survey of the amount of allocated employment land in the Doncaster borough. See: [http://www.doncaster.gov.uk/Environment_and_Planning/Planning/Local_Development_Framework/LDF_Evidence_Base_Reference_List/Evidence_Base_-_Employment.asp](http://www.doncaster.gov.uk/Environment_and_Planning/Planning/Local_Development_Framework/LDF_Evidence_Base_Reference_List/Evidence_Base_-_Employment.asp)

5.32 Doncaster Council’s Economic Development Unit provides a property guide which indicates which sites within the Employment Land Availability Study are currently being marketed (and so can be regarded as reasonably available). Applicants/developers should be advised to agree with the relevant case officer any specialist requirements that are to be used to discount reasonably available sites in lower flood risk zones (for example an employment use which requires rail access).
Retail/Other

5.33 Developers are advised to agree with the relevant case officer any specialist requirements and to identify an initial list of potential alternative sites that will be considered (and which would need to be discounted if the Sequential Test is to be passed).

General

5.34 PPS25 requires that the Sequential Test is carried out in an open and transparent way. For this reason, the Sequential Test information for stage 3 of the test should be provided in a report format (see pro-forma template included in Appendix 2). This pro-forma template should be completed and submitted with the planning application and should be used as a basis for applying the sequential test.
5.35 Where it is not possible to identify alternative sites within zones at a lower risk of flooding, the applicant/developer will be required to carry out an **Exception Test**, subject to the requirements set out in the table below.

5.36 The table classifies different types of development according to their vulnerability to flood risk (this is based on a combination of tables D2 and D3 within PPS25) and also indicates the circumstances in which development will be allowed within Flood Zones 2 and 3. Flood risk can be matched to development type to ensure more vulnerable uses are not located in areas of high risk.

5.37 In this context, essential infrastructure will include waste treatment facilities or schemes that generate significant amounts of energy (i.e. 50MW or above) unless it can be demonstrated by way of evidence that the impacts of the proposed scheme will be negligible in terms of waste management and energy production (where relevant). As mentioned previously, wind farms will not require a Sequential Test as they are usually small in size (hence will not displace much water) and capable of being water compatible as they are built at sea (although they do need to clearly be designed accordingly).

5.38 Essential infrastructure needs to not just be safe from flooding but also remain functional, which means even if the site is not within Flood Zone 2/3 (but the access road is) a Sequential Test may still be required (see sites partially within the flood zone under table 5).

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7 The above table does not explain the circumstances under which a Sequential Test is required: this is covered elsewhere in this section.
Table 5: Flood risk vulnerability and classification of different types of uses

N.B. This table does not explain the circumstances in which an Exception Test is required.

<table>
<thead>
<tr>
<th>Flood zone</th>
<th>Development allowed</th>
<th>Development not allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Low probability</td>
<td>Essential infrastructure, highly vulnerable (e.g. hospitals and mobile home sites), more vulnerable (e.g. dwellings and landfills), less vulnerable (e.g. general industrial and transport infrastructure) and water compatible infrastructure (e.g. water based recreation, amenity open-space and flood control infrastructure)</td>
<td>No constraints due to river, tidal or coastal flooding.</td>
</tr>
<tr>
<td>2 – Medium probability</td>
<td>All uses subject to a Site Specific Flood Risk Assessment but highly vulnerable (only if Exception Test can be met)</td>
<td>Highly vulnerable where Exception Test cannot be met, or there are alternative sites in Flood Zone 1</td>
</tr>
<tr>
<td>3a - High probability</td>
<td>Water-compatible and less-vulnerable (subject to a Site Specific Flood Risk Assessment) and more vulnerable and essential infrastructure only if Exception Test can also be met.</td>
<td>Highly vulnerable not permitted; more vulnerable and essential infrastructure where Exception Test cannot be met, or there are alternative sites in Flood Zones 1 or 2</td>
</tr>
<tr>
<td>3b – Functional floodplain</td>
<td>Water compatible, plus essential infrastructure if Exception Test can be met</td>
<td>Highly vulnerable, more vulnerable, less vulnerable not allowed; essential infrastructure not allowed where Exception Test cannot be met, or there are alternative sites in Flood Zones 1 or 2 or 3a</td>
</tr>
</tbody>
</table>
5.39 If an Exception Test is required, the following points (see paragraph D9 of PPS25) must be addressed.

- It must be clearly demonstrated that the development provides wider sustainability benefits to the community that outweigh the residual flood risk. This process must be informed by Doncaster’s Strategic Flood Risk Assessment and the site-specific Flood Risk Assessment submitted with the application.

- The development should be on developable previously-developed land or, if it is not on previously developed land, there are no reasonable alternative sites on developable previously-developed land.

- The Site Specific Flood Risk Assessment must demonstrate that the development will be safe, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

5.40 In relation to the first point above, paragraph 3.7 of PPS25 states, “In the absence of a sustainability appraisal, the developer / local planning authority will have to provide a reasoned justification detailing how the planning application provides wider sustainability benefits to the community that outweigh flood risk. Local planning authorities may consider the use of a sustainability checklist for this purpose”.

5.41 In assessing the sustainability of a proposal, applicants/developers should clarify the extent to which their proposal supports/conflicts with each of the 22 sustainability appraisal objectives as set out in the Sustainability Appraisal Scoping Report (available at www.doncaster.gov.uk/SA). In particular, this assessment will need to consider the social, economic and environmental impacts of the proposal on flooding. The second point above will be assessed against sustainability appraisal objectives 11 and 17.

5.42 It should also be noted that, as PPS22 states that priority should not be given to the re-use of previously developed land for renewable energy developments, this aspect of the test will not apply to them.
F  Site Specific Flood Risk Assessments

5.43 Where a development is proposed in a flood risk area (as identified through the Environment Agency’s Flood Maps) or within an area suffering local drainage difficulties, or where the site is over 1 Ha in Flood Zone 1, a Site Specific Flood Risk Assessment is required. Whilst insurance issues are not normally part of the planning process, applicants may wish to consider separately any insurance implications for the location and type of development at an early stage.

5.44 The Doncaster Strategic Flood Risk Assessment is a useful document for preparing Site Specific Flood Risk Assessments (see our web site at www.Doncaster.gov.uk/flood risk). The Strategic Flood Risk Assessment provides information on the range of interested stakeholders, including Internal Drainage Boards, which applicants will need to consult at an early stage in the formulation of their proposals.

5.45 Where a Site Specific Flood Risk Assessment suggests that the extent of flooding within the site may be greater than the boundary of the Environment Agency’s Flood Map (which are high level modelling), a Sequential Test may still be required.

Sustainable Drainage

5.46 Sustainable drainage is a long term approach to managing surface water which seeks to mimic natural drainage processes by allowing rainfall to soak into the ground (where possible) or delaying discharges. This reduces both the volume and rate of surface water runoff to sewers and watercourses. There are various forms of sustainable drainage systems, including green roofs (which offer potential benefits in terms of insulation, noise reduction, habitat creation and landscape impact mitigation) and drainage ponds and areas – which in larger developments may provide opportunities for wetland creation. These issues will, of course, need to be considered in the context of wider design issues and the creation of quality buildings, environments and places.

5.47 Doncaster Council is particularly keen to promote the wider use of sustainable drainage systems within development (where practical and ground conditions are suitable) so as to:

- reduce the impact of developments on existing drainage systems;
- reduce future flood risk; and
- increase biodiversity.

5.48 In addition to the guidance available within PPS25 and practice guide, three guides are included in the appendices of this SPD that offer detailed advice on:

- minimum standards for drainage design and flood risk;
• producing flood risk and run-off assessments for development; and
• producing drainage strategies.

5.49 Applicants are also directed to the adopted Sustainable Construction Supplementary Planning Document (available at www.doncaster.gov.uk/SPD) and the Sustainable Drainage System Manual (C697) (see government’s code of practice for sustainable drainage systems for more information).

5.50 Applicants/developers are required to provide full details of how any drainage/flood protection measures will be maintained/adopted, and should consider whether adoption by a third party is possible may be willing to adopt. However, it should be noted that Doncaster Council does not currently adopt sustainable drainage systems (although it is noted that this issue may be affected by the Flood and Water Management Bill).

Other

5.51 It should be noted that a site based sequential approach should take account of any areas of the site which are at a higher risk of flooding (although where it is proposed to put landscaping or open space within flood areas to comply with the requirements of PPS25 the proposed development will also need to be acceptable in terms of other considerations, such as Doncaster council’s ‘Landscape Planning on Development Sites’ Supplementary Planning Document - available at www.doncaster.gov.uk/SPD). The potential implications of ‘islanding’ should also be considered, particularly in relation to emergency planning. As per paragraph G12 of PPS25, site based flood warning and evacuation plans can assist with this.
6 Monitoring and Review

6.1 The effectiveness of the SPD will be reported on as part of the Annual Monitoring Report which summarises the effectiveness of planning policy and any remedial measures. The following indicators are proposed.

Table 6: Monitoring Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of planning permissions planning permissions granted contrary to sustained objections from the Environment Agency.</td>
<td>Nil</td>
</tr>
<tr>
<td>Condition of flood defences.</td>
<td>95% of defences in good or better condition by 2021.</td>
</tr>
<tr>
<td>NI188: Adapting to climate change</td>
<td>Progress against targets (TBC)</td>
</tr>
<tr>
<td>NI189: Flood and coastal erosion risk management.</td>
<td>Progress against targets (TBC)</td>
</tr>
</tbody>
</table>

6.3 This Supplementary Planning Document is based on the current economic situation and the policy framework including Planning Policy Statement 25 and the Unitary Development Plan. It will be monitored and updated as required in light of emerging or changing policy, and in particular will be updated and revised once the Unitary Development Plan begins to be superseded by the adoption of the Local Development Framework Core Strategy. We shall endeavour to begin a review of this SPD within no more than 6 months of Core Strategy adoption.

6.4 The Local Development Framework will also provide an opportunity to clarify local needs, and the level of growth appropriate for different settlements/areas of the borough – taking into account the full range of planning issues, including flood risk.
7 Other Sources of Information

The following websites offer information in relation to flooding which may be useful:

RIBA climate change homepage: download guidance and further information on the RIBA’s climate change programme
www.architecture.com/climatechange

Association of British Insurers: information on flooding and insurance
www.abi.org.uk/flooding

Ciria flooding homepage: advice on the repair and restoration of flooded buildings
www.ciria.org.uk/flooding

Chartered Institute of Water and Environmental Management
www.ciwem.org.uk

Department for Environment, Food and Rural Affairs: flood and coastal erosion risk management
www.defra.gov.uk/environ/fcd

Department of Energy and Climate Change
www.decc.gov.uk

Environment Agency flooding homepage
www.environment-agency.gov.uk/subjects/flood/

Flood Protection Association: information about manufacturers and installers of flood protection products
www.floodprotectionassoc.co.uk

Flood Resilient Home
www.floodresilienthome.com/index.asp

Geographical Association: flood risk assessment and management
www.geography.org.uk/resources/flooding

Improving the flood resilience of new buildings (CLG)

Institution of Civil Engineers
www.ice.org.uk

The LifE Project and Handbook
www.brebookshop.com
www.lifeproject.info
National Flood Forum
www.floodforum.org.uk

www.cabinetoffice.gov.uk/thepittreview

Planning Policy Statement 25: Development and Flood Risk (Department for Communities and Local Government)

PPS25 Practice Guide (CLG)
www.communities.gov.uk/publications/planningandbuilding/pps25practiceguide

Thames Estuary 2100 project (EA)
www.thamesweb.com

UK Climate Impacts Programme
www.ukcip.org.uk
Appendices:

Appendix 1: Glossary

Appendix 2: Sequential Test Pro-forma

Appendix 3: Minimum Standards for Drainage Design and Flood Risk

Appendix 4: Guidance for Developers producing Site Specific Flood Risk Assessments

Appendix 5: Guidance for Developers producing Drainage Strategies
## Appendix 1: Glossary

<table>
<thead>
<tr>
<th>Abbreviation/Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAP</td>
<td>Area Action Plan, a type of Development Plan Document e.g. for the Town Centre</td>
</tr>
<tr>
<td>Affordable Housing</td>
<td>Homes for households who cannot afford to buy or rent on the open market; they can include social rented homes, intermediate rented homes, and low cost home ownership and can be for a wide range of household types from first time buyers to homes for retired people.</td>
</tr>
<tr>
<td>AMR</td>
<td>Annual Monitoring Report for the Local Development Framework, produced at the end of each year</td>
</tr>
<tr>
<td>AQMA</td>
<td>Air Quality Management Area</td>
</tr>
<tr>
<td>ASLV</td>
<td>Areas of Special Landscape Value</td>
</tr>
<tr>
<td>B1, B2 and B8 uses</td>
<td>B1 is business use such as offices, B2 is general industrial, B8 is warehousing and distribution.</td>
</tr>
<tr>
<td>BGS</td>
<td>British Geological Survey</td>
</tr>
<tr>
<td>Brownfield Land</td>
<td>Previously developed land, as defined in the Government’s Planning Policy Statement PPS3 Housing, Annex B In addition as a point of clarification housing renewal sites are hereby classed as brownfield sites even though there may be a period of time between demolition and rebuild during which the site is temporarily greened over; they are brownfield by virtue of the intention to create a development platform for new housing development.</td>
</tr>
<tr>
<td>CABE</td>
<td>Commission for Architecture and the Built Environment</td>
</tr>
<tr>
<td>CCQ</td>
<td>Cultural and Civic Quarter</td>
</tr>
<tr>
<td>CSPO</td>
<td>Core Strategy Preferred Options</td>
</tr>
<tr>
<td>DBAP</td>
<td>Doncaster Biodiversity Action Plan</td>
</tr>
<tr>
<td>DCLG</td>
<td>Department for Communities and Local Government</td>
</tr>
<tr>
<td>DEFRA</td>
<td>Department for Environment, Food and Rural Affairs</td>
</tr>
<tr>
<td>DPD</td>
<td>Development Plan Document e.g. Core Strategy</td>
</tr>
<tr>
<td>Doncaster Main Urban Area</td>
<td>Doncaster Town Centre, Balby, Hexthorpe, Wheatley, Intake, Bessacarr, Cantley, Edenthorpe, Kirk Sandall, Bentley, Scawthorpe, Scawsby, and Richmond Hill.</td>
</tr>
<tr>
<td>Dwelling</td>
<td>Residential accommodation, including both houses and caravans.</td>
</tr>
<tr>
<td>ECML</td>
<td>East Coast Main Line</td>
</tr>
<tr>
<td>FARRRS</td>
<td>Finningley and Rossington Regeneration Route Scheme</td>
</tr>
<tr>
<td>Greenfield Land</td>
<td>Land which has not been previously developed, as defined in the Government’s Planning Policy Statement PPS3 Housing, Annex B</td>
</tr>
<tr>
<td>HMR</td>
<td>Housing Market Renewal (Pathfinder) – this government initiative includes Mexborough, Conisbrough, Denaby and Edlington</td>
</tr>
<tr>
<td>ITA</td>
<td>Integrated Transport Authority</td>
</tr>
</tbody>
</table>
### Industrial, Leisure and Commercial (including Retail)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHA</td>
<td>Local Housing Assessment (Housing Needs Study)</td>
</tr>
<tr>
<td>LCAA</td>
<td>Landscape Character Assessment Appraisal</td>
</tr>
<tr>
<td>LDF</td>
<td>Local Development Framework</td>
</tr>
<tr>
<td>LPA</td>
<td>Local Planning Authority e.g. Doncaster Council</td>
</tr>
<tr>
<td>LTP</td>
<td>Local Transport Plan</td>
</tr>
<tr>
<td>LWS / LGS</td>
<td>Local Wildlife and/or Geological Site (formerly known as Sites of Scientific Interest or SSIs)</td>
</tr>
<tr>
<td>MCI Waste</td>
<td>Municipal, Commercial and Industrial Waste</td>
</tr>
<tr>
<td>MPA</td>
<td>Mineral Planning Authority e.g. Doncaster Council</td>
</tr>
<tr>
<td>MSA</td>
<td>Mineral Safeguarding Areas</td>
</tr>
<tr>
<td>MPS</td>
<td>Minerals Planning Policy Statement</td>
</tr>
<tr>
<td>Non B Uses</td>
<td>For example Schools, Health uses</td>
</tr>
<tr>
<td>ODPM</td>
<td>Office of the Deputy Prime Minister</td>
</tr>
<tr>
<td>Operationally</td>
<td>Something which is directly linked to the functioning of a process, rather than wider aspirations</td>
</tr>
<tr>
<td>Related</td>
<td></td>
</tr>
<tr>
<td>P&amp;R</td>
<td>Park and Ride</td>
</tr>
<tr>
<td>PAS</td>
<td>Preferred Area of Search</td>
</tr>
<tr>
<td>PPS</td>
<td>Planning Policy Statement (Previously PPG – Planning Policy Guidance) e.g. PPS3 Housing</td>
</tr>
<tr>
<td>QBC</td>
<td>Quality Bus Corridor</td>
</tr>
<tr>
<td>RAWP</td>
<td>Regional Aggregate Working Parties</td>
</tr>
<tr>
<td>Redevelopment</td>
<td>A new development on a site which has been used previously</td>
</tr>
<tr>
<td>Replacement</td>
<td>The demolition of an existing dwelling and erecting a new dwelling on the same site</td>
</tr>
<tr>
<td>Retail Hierarchy</td>
<td>This underpins the Development Distribution Strategy. It identifies the functions of each Town, District and Neighbourhood centre.</td>
</tr>
<tr>
<td>RHADS</td>
<td>Robin Hood Airport Doncaster Sheffield</td>
</tr>
<tr>
<td>RIGS</td>
<td>Regionally Important Geological Site</td>
</tr>
<tr>
<td>RSLs</td>
<td>Registered Social Landlords</td>
</tr>
<tr>
<td>RTAB</td>
<td>Regional Technical Advisory Body</td>
</tr>
<tr>
<td>SA</td>
<td>Sustainability Appraisal. The government requires LDFs to be subjected to this to evaluate social, economic and environmental impacts</td>
</tr>
<tr>
<td>SAC</td>
<td>Special Areas of Conservation</td>
</tr>
<tr>
<td>SAM</td>
<td>Scheduled Ancient Monuments</td>
</tr>
<tr>
<td>SEA</td>
<td>Strategic Environmental Assessment</td>
</tr>
<tr>
<td>SFRA</td>
<td>Strategic Flood Risk Assessment</td>
</tr>
<tr>
<td>SHMA</td>
<td>Strategic Housing Market Assessment</td>
</tr>
<tr>
<td>SHLAA</td>
<td>Strategic Housing land Availability Assessment</td>
</tr>
<tr>
<td>SPA</td>
<td>Special Protection Areas</td>
</tr>
<tr>
<td>SPD</td>
<td>Supplementary Planning Document</td>
</tr>
<tr>
<td>SSSI</td>
<td>Sites of Scientific Interest – designated by Natural England and are afforded protection due to their importance as some of the Country’s best examples of wildlife sites</td>
</tr>
<tr>
<td>SUDS</td>
<td>Sustainable Urban Drainage Systems</td>
</tr>
<tr>
<td>Same Town</td>
<td>Within the settlement limits as defined by the UDP</td>
</tr>
<tr>
<td>Settlement</td>
<td>This underpins the Development Distribution Strategy. It identifies the functions of each settlement and identifies the potential benefits of growth.</td>
</tr>
<tr>
<td>SYPTE</td>
<td>South Yorkshire Passenger Transport Executive</td>
</tr>
<tr>
<td>UDP</td>
<td>Unitary Development Plan</td>
</tr>
<tr>
<td>WPA</td>
<td>Waste Planning Authority e.g. Doncaster Council</td>
</tr>
</tbody>
</table>
Appendix 2: Sequential Test Pro-forma

A2.1 It is the responsibility of the applicant / developer to provide the necessary information to demonstrate that there are no other reasonably available (i.e. suitable, developable and deliverable) sites where the development could be located to allow the council to carry out the Sequential Test. It is therefore advisable to consider the Sequential Test at the earliest opportunity.

A2.2 We strongly recommend that applicants / developers provide as much detail as possible with the planning application to assist the local planning authority in the application of the sequential test where development proposals are located within areas at risk of flooding.

A2.3 The sequential test pro-forma below may be used to present this information – although this is not a requirement. The form is split into three parts (as set out below) and the list of reasonably available sites should be ranked in order of preference.
**Part 1: Site identification and extent of vulnerability**

<table>
<thead>
<tr>
<th>Site name and area (ha)</th>
<th>Environment Agency Flood Zone (1, 2 or 3a and 3b)</th>
<th>Doncaster Strategic Flood Risk Assessment Flood Map (1, 2 or 3a and 3b)</th>
<th>Flood risk vulnerability classification</th>
<th>Status of site (i.e. previously developed or greenfield)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Is it fluvial or tidal?</td>
<td></td>
<td>High / more / less</td>
<td></td>
</tr>
<tr>
<td>e.g. extent of site within flood zones</td>
<td>e.g. residential – more vulnerable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Part 2 – Defining the sequential test & sources of evidence**

<table>
<thead>
<tr>
<th>Site name</th>
<th>Define the area of search (e.g. whole LPA area, specific market area, specific area of need/regeneration area or on a sub regional or national level)</th>
<th>Source of evidence (to confirm the site is reasonably available)</th>
<th>Has the site already been subject to a sequential test (i.e. as part of LDF process)? If yes, provide details of the results of the test.</th>
<th>LDF or UDP site reference number (where relevant)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>e.g. Employment Land Review or National Land Use Database of Previously Developed Land and Buildings</td>
<td>In the case of waste is it located within a central location in relation to?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Part 3 – Assessment of the Sequential Test

<table>
<thead>
<tr>
<th>Name of site</th>
<th>Grid reference on SFRA maps</th>
<th>Approx dwelling capacity of site (in the case of housing)</th>
<th>Ground water aquifer (i.e. is the site located within the ground water source protection zone?)</th>
<th>Surface water and/or other sources of flooding (e.g. drainage or sewer flooding)</th>
<th>Constraints to delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>e.g. The site has the potential to pollute the aquifer due to run off or industrial activities</td>
<td>e.g. Lack of appropriate infrastructure, proximity to sensitive receptors such as housing</td>
<td></td>
</tr>
</tbody>
</table>

Analysis of the flood risk information from Doncaster’s Strategic Flood Risk Assessment

Relevant information will include:

- scale of flood inundation (this will involve comparing inundation depths between the application site and alternative site or sites);
- condition of flood defences;
- analysis of existing flood risk management measures (if any);
- effects of surface run off from the site;
- incidents of flooding (e.g. storm water) within the site and immediate locality;
- ground water vulnerability;
- arrangements for safe access and egress; and
- the potential effects of development on climate change and flood risk.

Recommendation

In this section the sequential test must reach a conclusion about the site’s suitability for the proposed development and the extent of flood risk, vulnerability etc. Should the site be brought forward in preference to the proposed application site? Is the extent of flood risk higher or lower than the application site (this forms a key part of the test)? Could the site constraints listed above be overcome? Could the development be relocated to an area benefiting from flood risk management measures or of lower flood risk?
Appendix 3: Minimum Standards for Drainage Design and Flood Risk

National guidance

PPS 25 + Practice Guide
BRE Digest 365
Building Regulations 2000 - Approved Document Part H
Town & Country Planning (General Permitted Development) (Amendment) (No 2) (England) Order 2008 S.I. 2008 No 2362 Class F.

Code for Sustainable Homes

Basic Information (to be submitted with all applications)

Feasibility check for sustainable drainage (SuDS)
A Flood Risk Assessment (see Appendix 4 for details and some exceptions)
A Drainage Strategy (see Appendix 5 for details)
Detail contained in these reports should reflect the scale, nature and location of the proposal.

System Design Criteria

A3.1 ALL drainage (including sustainable systems – CIRIA C609 p.80) shall comply fully with the Sewers for Adoption Edition 6 and shall meet the following basic standards:

- Pipe full in 1 in 2 year storm, no site flooding in a 1 in 30 year storm, no internal flooding in 1 in 100 year storm plus climate change (See PPS 25 and Practice Guide)
- Flows between the 1 in 30 year storm and the 1 in 100 year storm plus climate change should be stored on site or may be discharged off-site over-ground, but only provided there is no increased impact on off-site property compared to the existing situation. (PPS 25 Annex F para. F9)
- Separate systems of drainage shall be used with foul and surface water discharging respectively to foul and surface water facilities.
Discharge to a combined system should be via a common chamber at the site boundary.

Allowable peak surface water discharges (to watercourse or sewer)

A3.2 Greenfield development: 5 litres per sec per hectare in all conditions (unless alternative peak surface water discharges are agreed with key stakeholders, including the Environment Agency). For sites less then 1 ha the allowable discharge will depend on characteristics, but we will not normally seek a discharge of less than 5 litres per second.

A3.3 Brownfield development: National guidance on the expected scale of reduction of peak discharge from brown field sites is not clear. DEFRA’s “Interim Code of Practice for Sustainable Drainage Systems” says it is preferable for brown field solutions to provide similar run-off characteristics to green field development. (6.2.8)

A3.4 Flow control devices: The recommended minimum physical diameter to promote trouble-free service in 150mm (however Developers are advised to take account of adoption Authority specific requirements in case a smaller diameter is required.

Vehicle accessible areas

A3.5 Before the development is bought into use the part of the site to be used by vehicles will need to be laid out and surfaced in a bound, and preferably permeable, material. The surfacing will need to ensure that surface water is disposed of in accordance with best practice of sustainable drainage, that water does not drain onto the highway and ensure that the use of the land will not give rise to mud hazards at the entrance/exit points in the interests of public safety. The use of loose gravel for surfacing will not normally be appropriate due to potential road safety issues.

A3.6 Hard surface areas exceeding 5m² located between the principal elevation of a dwellinghouse and a highway require planning consent unless made of porous materials or drain to a permeable or porous area within the curtilage of the dwellinghouse.

A3.7 For the surface water drainage of sites with more than 10 parking spaces the Developer should consider one/both of the following, listed in order of preference:

a) Sustainable Drainage Systems (SuDs) – permeable paving/filter strip (see best practice manual C523 – published by CIRIA).

b) Environment Agency’s Pollution Prevention Guidelines (PPG) 3 “Use and Design of Oil Separators in Surface Water Drainage Systems”.

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On-site sewage treatment

A3.8 All installations shall be designed in accordance with BS6297: 1983. (To be replaced by BS EN 12255 & 12566) Soakaways for septic tank effluent shall be at least 10m away from the nearest land drain or watercourse. Percolation test results and calculations shall be submitted for the written approval of the Local Planning Authority. If effluent disposal is direct to a watercourse the applicant should demonstrate that the discharge has been consented by the Environment Agency.

Grease Interceptors

A3.9 Grease / fat shall be intercepted in the drainage serving commercial and institutional food preparation and dish-washing areas. Submitted schemes should include proposals for regular emptying and disposal of the grease by a registered contractor to a licensed waste facility.

Flood Protection

A3.10 Climate Change: A 20% increase in peak rainfall and peak river flows should be allowed when assessing flood risk. A minimum of 10% increase in rainfall depth should be assumed in calculating storage volumes.

A3.11 Floor levels – general flooding: Floor levels of dwellings and public buildings should be given an additional freeboard of 300 mm above peak levels and above the levels of adjacent roads or land. For commercial/industrial property 200 mm is an acceptable level of freeboard (unless alternative levels are agreed with key stakeholders, including the Environment Agency).

A3.12 Floor levels – river flooding: Where the development is at risk from fluvial (river) flooding the following freeboard figures apply: 600 mm for dwellings, 400 mm for office and commercial, 300 mm for industrial and warehousing, 300 mm for entrances to underground car parks (unless alternative levels are agreed with key stakeholders, including the Environment Agency).

A3.13 All new dwellings and public buildings in low lying areas which had historically flooded in the 2007 and 1947 flood events should have floor levels set higher than the recorded flood level and no lower than 5.0 metres A.O.D.

A3.14 Maintenance of flood controls: All proposed flood control and storage installations must be maintained by a responsible corporate body.

Soakaways for Surface Water
A3.15 Certified percolation tests should be carried out prior to commencement and calculations submitted for the written approval of the LPA.

A3.16 Soakaways should not be used where there is a history of groundwater flooding or where flows could re-emerge to flood lower lying property.

A3.17 Soakaways must not be placed in areas where the surface may be subject to regular deposition of polluting matter. (e.g. working pastures)

**Works affecting watercourses**

A3.18 Prior consent for works affecting a watercourse requires the formal consent of the Environment Agency.

A3.19 Discharges to watercourses: All discharges must be approved by the Local Land Drainage Authority and applicants should check whether Environment Agency consent is required. Applicants should assess the downstream effects of their connection as off-site works may be required. Discharge of treated effluent to a watercourse requires the Environment Agency’s consent.

A3.20 Culverting of watercourses: Environment Agency (EA) policy is firmly against piping or culverting of a watercourse except for construction of access crossings. All proposals must be consented by the EA.

**Site strip run-off**

A3.21 The developer should assess the risk that when topsoil has been stripped from the site excess water, mud and silt will be carried off site during rainfall causing nuisance and danger on adjoining land or highways especially in winter. Suitable preventative measures must be designed and submitted along with the permanent works design.

**Entry and wayleave**

A3.22 If it is necessary to enter private land to survey for or make a connection to sewer, drain or watercourse the landowner’s permission is required. Approval by a consenting authority does not convey the right of entry to private land or permanent wayleave across it.
Appendix 4: Guidance for developers producing site specific Flood Risk Assessments for developments

A4.1 A Flood Risk Assessment (FRA) assesses the potential for the development to flood by any means and the potential for the development to cause or increase flood risk upstream and downstream land and property. Each FRA should be proportionate to the risk and appropriate to the scale, nature and location of the development.

A4.2 Guidance for Developers, at pre-planning stage, on whether a site specific Flood Risk Assessment (FRA) will be required and on whether certain tests of the suitability or vulnerability of the proposed development for the chosen site are needed is available as “Flood Risk Standing Advice” from the Environment Agency website (www.environment-agency.gov.uk).

Issues, which should be considered in an FRA

General Issues

A4.3 Flood risk and run-off assessments submitted should be drafted in accordance with PPS 25 and should consider, however briefly, all the following issues.

A4.4 A flood risk assessment should be appropriate in scale to the perceived risks and the size of development proposed but as a summary guide it should normally:

- Consider whether the proposed development is appropriate for the site in question (see following section).
- Be carried out by a suitably qualified person before an application is submitted.
- Assess and quantify all the different types of flooding that could affect both the development and other land and property as a result of the proposal.
- Include a topographical survey of the existing site.
- Illustrate the finished levels of the development.
- Take the effects of climate change into account.
- Consider the impact of flood risk management infrastructure and its failure.
- Identify the level of residual risk and demonstrate that this is acceptable in relation to the proposed development.
- Include a Drainage Strategy for the site which considers the impact of the development on existing drainage infrastructure and investigate the use of sustainable drainage systems (SuDS).
Technical Issues

A4.5 The following technical points should be considered:

- Only the positive history of the site will be considered valid. Lack of reported flooding will not be accepted as evidence of no flood risk.
- The potential for flooding from rivers/watercourses during a 100-year storm event with additional allowance for climate change must be checked and the risk of blockage factored into the assessment.
- The potential for flooding by overland flow run-off from the site or adjoining land or paved areas during a 100-year storm event with the additional allowance for climate change should be checked.
- The effect of flood defences will only be taken into account if they are appropriate (in terms of protection level and condition), have a residual life equal to that of the development and are permanently maintained by a corporate body on behalf of the development or by a Land Drainage Authority. An analysis of overtopping and breach scenarios will be required where defences are not appropriate, and where vulnerable development is in a potential rapid inundation zone if defences should fail.
- The protection afforded by restricting structures upstream will not be taken into account unless the structure is in the direct control of the developer and will remain so or is a permanent, purpose build structure in the control of a Land Drainage Authority.
- Where there is a risk of flooding from on-site drainage residential and public building floor levels should be set at 300mm above the 100-year storm flood level plus the allowance for climate change and 300mm higher than the adjoining land and highways. Other flood levels should be set at 200mm higher than the 100-year flood levels plus the allowance for the climate change and 200 mm higher than adjoining land and highways.
- Where the development is at risk from the fluvial (river) flooding floor levels should be set at or above the following heights (freeboard) above the peak water levels (Finished floor levels should normally be set with a freeboard above the 1 in 100 year plus climate change event): 600 mm for dwellings, 400 mm for office and commercial, 300 mm for the industrial and warehousing, 300 mm for entrances to under ground car parks.
- If these freeboard values cannot be clearly achieved (on steep sites for example) there should be a clear flood path through the development, which will ensure no on-site property flooding and no increased risk of off-site property flooding as a result of the development.
- Any required downstream improvement works to sewers or watercourses must be completed before the development begins to contribute flow.
- Compensatory storage should be provided for the 1 in 100 year event (where sites are shown to be within the 1 in 100 year plus climate change flood outline) with an additional 20% added to the storage volume to account for climate change.
- The on-site drainage should comply with the relevant “Sewers for Adoption” standard (currently edition 6).
- Developments which will flood externally in any storm less than the 1 in 30 year return frequency shall be provided with a flood warning system as a part of a comprehensive flood management plan. This should consider the needs of the sick, elderly and disabled and be drawn up in consultation with the Emergency Services.
- Safe access and egress should be available for the occupants of buildings during the 100-year event plus climate change. Some guidance as to the safety of access for the different types of development is given in the following table:

<table>
<thead>
<tr>
<th>Class of development</th>
<th>Required condition for the safe access/egress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital/Nursing Home/Care Home/School</td>
<td>No appreciable standing or flowing water</td>
</tr>
<tr>
<td>Residential with &gt; 20% one bed units</td>
<td>No appreciable standing or flowing water</td>
</tr>
<tr>
<td>Other residential</td>
<td>HR is less than 0.75</td>
</tr>
<tr>
<td>Commercial/Offices/Further Education</td>
<td>HR is less than 1.25</td>
</tr>
<tr>
<td>Industrial</td>
<td>HR is less than 1.25</td>
</tr>
</tbody>
</table>

**Notes**

Hazard Rating (HR) = d x (v + 0.5) +DF

- d = Depth of flood water (metres)
- v = Velocity of flood water (m/s)
- DF = Debris factor (0, 0.5, 1 depending on risk that debris will lead to a significantly greater hazard)

Depth and velocity calculated for a 100 year storm plus climate change allowance.
Appendix 5: Guidance for developers producing drainage strategies

A5.1 A Drainage Strategy is a report covering the disposal of foul and surface water from a development both during and after the construction phase. Certain sites when stripped of their topsoil will generate greatly increased run-off, which may conflict with the development and might suffer damage during construction. These must be allowed for both in strategy and the detailed site drainage proposals, which are developed from it.

A5.2 Before a Drainage Strategy can be validated for a significant development the following issues must all be addressed. Smaller developments may not need to address all issues in detail.

Disposal

A5.3 The proposed methods of disposal for foul and surface water should be clearly identified.

A5.4 Separate systems of on-site drainage should be provided in all cases (except minor extensions to buildings served by a combined system) even if surface water is ultimately to be connected, directly or indirectly, to a combined sewer.

A5.5 Where facilities already exist, their layout, performance and service condition should be known. It is a requirement of Building Regulations that existing drainage to be re-used is shown to be viable before new connections are made.

A5.6 Balancing of surface water flows may be obligatory for any development of 100 square meters impermeable area or more.

Sustainable Drainage Systems (SuDS)

A5.7 SuDS should always be considered before designing traditional drainage techniques. (Building Regulations 2000 – Approved Document H) Consideration should take account of:

- Ability of the method to deliver the correct performance.
- Future maintenance.
- Health and Safety (e.g. depth of standing water and protection of children).
- Nuisance (e.g. soakaway drainage on steep hillsides re-appearing at surface downhill).

A5.8 Further guidance is available at the CIRIA website on www.ciria.org
A5.9 If SuDS techniques are not suitable the following order of preference should be used in choosing an alternative method of disposal, depending on availability:

- Watercourse
- Surface water sewer
- Combined sewer

A5.10 Flow balancing and oil interceptors may be required before final discharge with any of these methods.

Soakaways

A5.11 Soakaway techniques must always be proved by viable percolation tests.

Consents

A5.12 Consent or formal agreement will be required from the owner of adjoining land to enter to survey for or make drainage connections. Consent of the owners of private pipes will also be required. Consent of the supervising authority to discharge does not imply consent to enter land or to make physical connection.

A5.13 Consent of the local Water and Sewerage Company will be needed to any new connection to the public sewer system regardless of whether this is direct or achieved via an existing private drain.

A5.14 Consent to discharge – see separate Doncaster Drainage Guidance Sheet 1c – Minimum Standards for Drainage Design and Flood Risk.

Run-off and Pollution

A5.15 When development commences surface run-off invariably increases dramatically as the soil is stripped. On steep sites and sites close to watercourses this can present flooding or pollution problems. The developer may be required to provide collection, balancing and/or settlement of these flows.

A5.16 Drainage of impermeable vehicle parking and manoeuvring areas should be passed through a petrol/oil interceptor. Roof water should not be discharged into the interceptor.

A5.17 Foul drainage of facilities providing catering or food manufacture on a commercial scale should be provided with grease traps, which should be emptied on a regular basis by a registered contractor and the spoil removed to a licensed disposal point.
Conflicts

A5.18 All existing drains, sewers, watercourses and culverts should be identified:

- Within the site boundary.
- Under the footprint of any proposed buildings or structures or within the zone of influence of their foundations.

A5.19 No building or foundation pressure (assuming a 45° spread) should be placed within a stand-off zone from public sewers. For details of the appropriate distances applicable to your work please refer to the relevant Water and Sewerage Company. No building or foundation pressure (assuming 45° spread) should be placed within 5 metres of an enclosed watercourse.

A5.20 Planning Conditions may be imposed to require protection of any existing infrastructure from damage or blockage by debris during the construction phase.

A5.21 The need for any diversions or abandonment’s should be established and the following agencies contacted:

- Public Sewers - Local Water and Sewerage Company
- Private sewers and Drains - Building Control
- Main Rivers - Environment Agency (EA)
- Ordinary Watercourses - Doncaster MBC and/or IDB and possibly the EA

A5.22 If it is proposed to enclose any ditch or watercourse it should be borne in mind that the Environment Agency has a strong presumption against enclosure and will only consent if it is required to make access.

Flooding

A5.23 Flooding risks should be identified in a Flood Risk and Run-off Assessment. (See Appendix 4 "Guidance for developers producing a Flood Risk and Run-off Assessment")

Design Standards

A5.24 Please see Appendix 3 “Minimum standards for Drainage Design and Flood Risk”
All our other documents can be accessed on the Doncaster Council website

www.doncaster.gov.uk

If you are unable to access this website or need any further information, please contact Doncaster Council’s Local Development Framework Team

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