

Strategic Flood Risk Assessment: Sequential Test

Horsham District Planning Framework

April 2014



**Horsham
District
Council**

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1.0 Introduction

- 1.01 This document has been prepared as a second stage and supplement to the Strategic Flood Risk Assessment (SFRA) Final Report- Revised 2010. The purpose of this document is to demonstrate that strategic sites identified in the Horsham District Planning Framework (HDPF) that contain areas at flood risk are appropriate in the context of the Sequential and Exception Tests which are required as part of the National Planning Policy Framework (NPPF).
- 1.02 The main role of this document is to provide the evidence basis for the strategic sites in the HDPF where flood risk is a relevant issue.
- 1.03 Further information relating to the explanation of Sequential/Exception Tests and when they are applicable in relation to the vulnerability of the proposed use is available in the NPPF and accompanying Planning Practice Guidance under Flood Risk and Coastal Change.
- 1.04 This document firstly explains the context in terms of national planning policy and local flood risk. It then identifies those strategic sites in the HDPF where a Sequential or Sequential and Exception Test are required. It has taken into account comments made by both the Environment Agency and West Sussex County Council as the Lead Local Flood Authority.

2.0 Planning Context

The National Planning Policy Framework

- 2.01 The NPPF (2012) provides the policy guidance in relation to development, and the allocation of development sites, in areas at risk of flooding. This is currently expanded further in the accompanying Planning Practice Guidance: Flood Risk and Coastal Change.
- 2.02 National planning policy guidance advocates inappropriate development being avoided in areas at risk of flooding by directing development away from areas at highest risk. Where development is found to be necessary following the application of the Sequential and Exception Test, it seeks development to be made safe without increasing flood risk elsewhere.

Horsham District Local Development Framework

Core Strategy and Development Control Policies (February 2007)

- 2.03 At the local level, Horsham District has an adopted Core Strategy since 2007. The Core Strategy sets out the key elements of the planning framework by defining the vision and objectives, together with the strategy and 'core policies' for the future. The two Strategic Locations west of Horsham and northwest of Crawley form part of this strategy. The document also contains policy CP2 which seeks to ensure new and existing development is not adversely affected by flooding.
- 2.04 The General Development Control Policies (2007) document includes Policy DC7: Flooding, which builds on policy CP2, and sets out where development

will be permitted to ensure flood risk is not increased. This policy was underpinned by the Strategic Flood Risk Assessment (June 2007).

Horsham District Planning Framework

Preferred Strategy (August 2013)

2.05 The Horsham District Planning Framework Preferred Strategy (August 2013) set out a range of draft planning policies for consultation. These draft policies aim to set how it is anticipated the needs of the District will be delivered as well as protecting and enhancing the places, in which we live, work and relax. This document also identified the strategic sites of East of Billingshurst, West of Southwater and land North of Horsham as the preferred locations for future housing delivery in the District.

Proposed Submission Document

2.06 Having reviewed the representations received on the Council's Preferred Strategy, the draft policies are being updated. The Council intends to carry out consultation on the Proposed Submission document within the coming months. Going forward the strategic development sites will remain unchanged with the exception of Land East of Billingshurst as this has since gained planning permission.

Evidence Base to support the Horsham District Planning Framework

Strategic Housing Land Availability Assessment (SHLAA)

2.07 The SHLAA is a piece of evidence base that identifies land available for housing development in the next 15 years. In line with the Sequential Test approach, assessment of flood risk was part of the initial sift of available sites. Those sites with land predominantly in Flood Zones 2 and 3 were largely considered unsuitable on the basis that other more suitable sites were available at a lesser risk of flooding.

3.0 Local Flood Risk Context

3.01 Horsham District administrative area has a total administrative area of 529km and is predominately rural, with few major urban centres. Consequently, a relatively low level of flood risk exists when compared to some surrounding Districts.

3.02 The SFRA (Final Report- Revised 2010), identified the District has having the following flood zones;

- 6.48% is located within Flood Zone 3b (Functional Floodplain)
- 1.20% is located within Flood Zone 3a
- 0.93% is located in Flood Zone 2.

3.03 The main river catchments include the River Arun and tributaries, and the River Adur and tributaries. These rivers are the predominant source of flood risk within Horsham District. To a lesser extent there is a risk of flooding from groundwater, surface water and sewer flooding.

- 3.04 Tidal flooding affects both the River Arun and River Adur. On the River Arun, the tidal limit is at Pallingham Locks, where defences currently provide a standard of protection of 3% (1 in 30 years). The River Adur has its normal tidal limit near Partridge Green with defences providing the same standard of protection of 3% (1 in 30 years).
- 3.05. The SFRA (Final Report- Revised 2010 identified there are no records of groundwater flooding.
- 3.06. Pluvial flooding , which typically arises when intense rainfall, often of short duration, is unable to soak into the ground and/or enter drainage systems, has been noted to have affected a large number of roads in Horsham, Pulborough, Southwater, Thakeham, Washington, Slinfold, Cowfold and Henfield during heavy rainfall events.

4.0 Sequential and Exception Test

4.01 A Sequential and Exception Test for the three strategic sites for mixed/residential use development (more vulnerable use) is outlined below. Table 1 identifies those strategic sites which are proposed for development where the developable area will include areas wholly or partly affected by flood risk (i.e. Flood Zones 2 or 3). This has been established through the use of up-to-date flood modelling which includes the 2010 SFRA.

4.02 The table indicates the flood zone type, the vulnerability of the use proposed and the subsequent requirement for the Sequential and/or Exception Test to be applied. The requirement for a Sequential and/or Exception Test has been informed by the Planning Practice Guidance to the National Planning Policy Framework (2012).

Table 1: Strategic Sites: Sequential and Exception Test

Site Ref	Site Name	Flood Zone/type	Whole or part of site affected	Proposed use	Vulnerability of use	Sequential Test	Exception Test	Flood Risk Assessment
East of Billingshurst	East of Billingshurst	Flood Zone 1		Residential mixed use	More Vulnerable	Passed	N/A	Yes
Southwater	West of Southwater	Flood Zone 1		Residential mixed use	More Vulnerable	Passed	N/A	Yes
North of Horsham	North of Horsham	Majority Flood Zone 1 with parts of the south west corner within Flood Zone 2 and Zone 3	Part	Mixed use	More Vulnerable	Yes	Yes	Yes

5.0 Sequential and Exception Test: Strategic Sites

5.1 Land East of Billingshurst

5.1.1 The site is identified as being at low risk in Flood Zone 1 and therefore meets the requirements of the Sequential Test.

5.1.2 This site has some areas of surface water flood risk¹, which have been identified and indicated by West Sussex County Council as the Lead Local Flood Authority. These areas are near existing watercourses running through lowest parts of the site. There are also some records of isolated surface water flooding nearby.

The site is indicated as being at a low level of groundwater potential due to clay geology.

5.2 Land West of Southwater

5.2.1 The site is identified as being at low risk in flood zone 1 and therefore meets the requirements of the Sequential Test.

5.2.2 This site has some areas of surface water flood risk, which have been identified and indicated by West Sussex County Council as the Lead Local Flood Authority. These are near existing watercourses running through lowest parts of the site.

5.3 Land North of Horsham

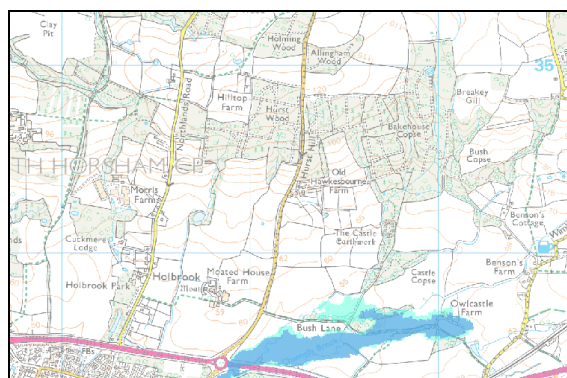
Flood Risk:

The site is mainly located in flood zone 1 with areas on the eastern side of the development located in flood zone 2 and 3.

Site Characteristics:

192.5 hectares in size

The site will provide a mixed use development including employment, neighbourhood centre, housing, open space and education facilities.



¹ * Surface water and groundwater susceptibility is based on modelling and whilst indicating that there is a potential risk it does not mean that the site has or will be flooded from this source. Surface water risk noted indicates that areas are partially within an area marked at 1 in 100 year risk in the updated Flood Map for Surface Water (release Dec 2013). Areas not indicated for flooding risk does not mean that it will not possibly be at risk – purely that the available mapping and records do not show it at risk.

Overview:

The site area is crossed by Chennells Brook and its tributaries which flow generally from the north to south through the eastern section of the proposed development area.

The majority of the site lies within Flood Zone 1, with the land around Chennells Brook on the eastern side of the development area within Flood Zone 2 and 3.

Sequential Test Conclusion:

The site provides an opportunity to deliver a large scale mixed use development in the north of the district. The development will provide a significant proportion of employment space along with residential dwellings to ensure the District can meet its housing demand and help the local economy to grow.

This strategic site is therefore considered important for the continued sustainable development for the District and will deliver wider economic and social need. Based on this the proposed allocation passes the Sequential Test.

Exception Test:**Options for addressing Flood Risk & their feasibility**

- **On-site strategic measure:**

A Sequential Approach will be taken across the site to ensure built development will be avoided in Flood Zone 3.

- **On site measures**

In order to sustainably manage flood risk on site and to ensure flood risk is not increased elsewhere, the development will be required to incorporate a SuDS scheme. The scheme will be detailed within a site specific flood risk assessment and designed to current policy and best practice, which will manage rainfall run-off rates and volumes to existing pre-development rates and mimic the natural drainage regime of the site.

Overall Conclusion:

The majority of the site is located within Flood Zone 1 and therefore a sequential approach will be taken across the site to ensure all development is placed outside the highest risk zones.

6.0 Conclusion

- 6.01 With the exception of Land North Horsham, HDC have allocated strategic development in Flood Zone 1.
- 6.02 With regards to the Land North of Horsham, where land is located in Flood Zones 2 and 3, this document has demonstrated that the Sequential and Exception Test approach has been undertaken and met. It has shown that the development type/scale to be allocated can, in principle, be delivered appropriately in relation to flood risk.
- 6.03 In line with the NPPF detailed Flood Risk Assessments will remain a necessary and important part of the planning application process for all sites.