

Ashford Town Centre Area Action Plan – Regulation 27 Version - Flood Risk Assessment

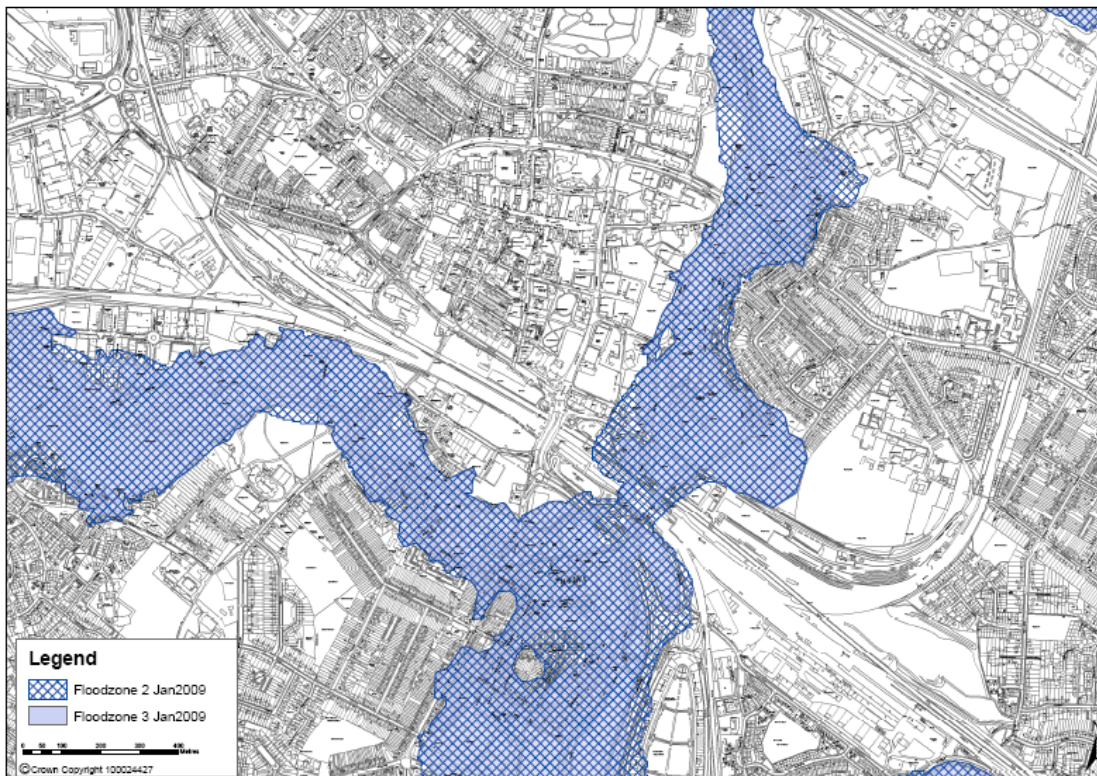
Introduction

This Flood Risk Assessment (FRA) has been prepared by Ashford Borough Council and the Environment Agency to support the Town Centre Area Action Plan (AAP) proposals. It should be read in conjunction with the Core Strategy (adopted 2008) and the accompanying Borough-wide Strategic Flood Risk Assessment (SFRA) adopted October 2006. The SFRA pre-dates the latest Government planning statement on development and flood risk, PPS 25, which should also be considered. In addition, other strategic documents that have been considered include: the Ashford Integrated Water Management Study (AIWMS), the Greater Ashford Development Framework (GADF), the Stour Catchment Flood Management Plan (CFMP) and the Upper Stour Strategic Review.

This FRA does not preclude the need to produce site-specific flood risk assessments in support of planning applications. Indeed, this FRA should be used, along with the other documents mentioned above, to inform site-specific FRAs in the Town Centre AAP area.

Background

The town of Ashford lies at the confluence of five main watercourses – the Great Stour, East Stour, Aylesford Stream, Whitewater Dyke and Ruckinge Dyke. All of these potentially have an impact on the Town Centre AAP area.



Historically this has led to occasional flooding in the Town Centre AAP area. The frequency and extent of flooding has been reduced by the provision of detention storage reservoirs upstream of the town at Hothfield (on the Great Stour) and Aldington (on the East Stour). However, the recently completed Upper Stour Strategic Review identifies the South Ashford area as a location where existing properties are potentially at risk even with Hothfield and Aldington flood storage reservoirs operational.

The Environment Agency has produced Flood Zone Maps identifying areas considered to be at High, Medium and Low probability flood risk in accordance with Planning Policy Statement 25 'Development and flood risk' definitions. All three Flood Zones, including the sub-zone 3b, Functional Floodplain, are present in the Town Centre AAP area. Indeed, some potential development sites contain all three flood zones.

The maps for Ashford town centre are considered to be accurate as they are based on extensive modelling and have been quality assured against actual recorded flood events. The mapping takes account of the upstream storage reservoirs to represent both the 'defended' and 'undefended' situation. The modelling also includes an allowance for climate change. That said, it is recognised that in built-up areas and areas where the hydraulics are complicated, more accurate representation of potential flood impacts can be obtained using 2d modelling techniques. This approach is recommended for part of the Town Centre AAP area, specifically south of the railway.

In-line with national and regional planning guidance, certain highly or more vulnerable uses such as housing and residential institutions, health and education buildings, emergency services and essential infrastructure as defined in PPS 25 should not normally take place in areas at high probability of flooding (i.e. within the 1 in 100 year river floodplain).

Since Ashford was designated as a growth area under the Sustainable Communities Plan, much work has been undertaken to define flood risk and its impact on growth. As early as 2001, Halcrow Group Limited prepared a Capacity Assessment in which flood plain protection was identified as a key constraint to growth. Following on from this, Government funded an innovative Integrated Water Management Study (IWMS) for Ashford. This theme has been continued through Ashford's Core Strategy, the Greater Ashford Development Framework (GADF) and the emerging Area Action Plans. All of which seek to ensure new development is not put at risk by flooding, nor does it contribute to increased flood risk for existing residents.

The approved Stour Catchment Flood Management Plan (CFMP) identified that, as of 2005, 2,088 properties were at risk to a 0.5% (1 in 200 year) flood in Ashford. By 2050 this is predicted to rise to 3,133. An increase of 1,045 properties. The planning framework for Ashford sets out that the town is expected to grow by 31,000 homes by 2031.

It can be seen that only a small proportion of the planned homes, just over 1,000, are predicted to be at risk to flooding. Indeed, the figure of 1,045 is likely to include existing homes, many of them quite old, that were built on the edge of floodplain that are put at risk in the future as flood risk responds to climate change. Whereas, development that is currently being planned for Ashford takes into account the latest climate change predictions.

The Upper Stour Strategic Review (2009), using latest modelling predictions, identifies fewer existing properties at risk even after taking climate change into account, some 1,500. The vast majority of these (some 1,200) continue to have the probability of flooding reduced by the existence of the upstream flood storage reservoirs.

It is true to say that Ashford's Strategic Flood Risk Assessment (SFRA) was completed before Planning Policy Statement 25 was adopted. Nevertheless, the principles of PPS 25 were known and the SFRA reflects them. Ashford Borough Council and the Environment Agency will be updating the SFRA to bring the terminology in line with PPS 25.

Core Strategy

Following extensive public consultation and formal Examination in Public, Ashford's Core Strategy was adopted in June 2008. At its heart, the Core Strategy has a number of guiding principles set out in Policy CS 1. The first of these relates, *inter alia*, to flood risk:

POLICY CS1: Guiding Principles

Sustainable development and high quality design are at the centre of the Council's approach to plan making and deciding planning applications. Accordingly, the Council will apply the following key planning objectives:

A. Development that respects the environmental limits that protect the high quality built and natural environment of the Borough, minimises flood risk, provides for adequate water supply, and protects water and air quality standards;

In proposing areas for new development, the Core Strategy has generally avoided areas of high probability of flood risk and the functional flood plain. The allocation of sites in other DPDs within the LDF and any other proposals put forward for development should follow this sequential approach of avoiding areas of high risk of flooding and the functional floodplain as set out in Government guidance.

In principle, new development proposals should not be located within the High Probability 1% (100 year floodplain) – Flood Zone 3. However, an exception may be made where the new development would not be subject to an unacceptable risk of flooding itself, and where existing land uses or developments would not suffer an increased flood risk as a result. In practical terms, this means that appropriate mitigation measures must be put in place. Appropriate compensatory replacement floodplain storage must be provided if development takes place within the floodplain.

Specifically Policy CS19 deals with flood risk:

POLICY CS19: Development and Flood Risk

Proposals for new development within the 100 year undefended river floodplain or the 200 year sea floodplain (plus an appropriate allowance for climate change) will not be permitted unless following a Flood Risk Assessment it can be demonstrated that:

- i) it would not be at an unacceptable risk of flooding itself, and,
 - ii) the development would not result in any increased risk of flooding elsewhere.
- In exceptional circumstances, where the tests above cannot be met, essential transport or utility infrastructure, or other development on a brownfield site may be allowed if:

- a) the development is designed to be compatible with potential flood conditions, and,
- b) there are no alternative sites in a lower flood risk zone, and
- c) the development would make a significant contribution to the overall sustainable development objectives of the LDF, such that the wider sustainability benefits of the development outweigh the flood risk and,
- d) it can be demonstrated to the satisfaction of the Council and the Environment Agency that any residual flood risks are adequately mitigated to avoid an increased risk of flooding either on the site or elsewhere.

In addition, development that would harm the effectiveness of existing flood defences or prejudice their maintenance or management will not be permitted.

By applying the sequential approach for new development, the Core Strategy has generally avoided areas of high probability of flood risk and the functional flood plain. Indeed, as we have demonstrated, of the proposed 31,000 houses suggested by the Greater Ashford Development Framework (GADF), by 2031 it is estimated that approximately 30,000 are located in Zones 1 and 2.

Flood risk in the Town Centre AAP area

The Greater Ashford Development Framework (GADF) identified a 'compact growth model' for Ashford. This approach was widely supported, including by the Environment Agency, as it was seen to ensure the sustainability of the existing town centre into the future, and to maximise the use of limited previously developed land in the Town.

By definition, this approach will necessitate some development in and close to the town centre; and by extension, some of this development will be in areas at risk to flooding. Though, as we have seen, this is but a small proportion of the overall growth in the town.

The Aldington and Hothfield flood alleviation schemes have reduced the probability of flooding occurring within Ashford town centre. And the Upper Stour Strategic Review confirms commitment to maintain these defences. The Ashford-wide Strategic Flood Risk Assessment (SFRA) prepared in support of the Core Strategy, asserts that for planning purposes in greenfield locations on the edge of town, the 100-year floodplain is defined as the 'undefended' floodplain (i.e. that which existed prior to the construction of those schemes). However, for brownfield locations in the town centre where wider sustainability issues have to be promoted, the 'defended' floodplain will be considered suitable for locating development including more vulnerable development such as dwelling houses, providing it can be demonstrated that CS Policy 19 a – d have been complied with.

The allocation of sites in this AAP follows this sequential approach of avoiding areas of high risk of flooding - particularly the functional floodplain - as set out in Government guidance.

Sites within this AAP have been subjected to both the Sequential Test and Exception Test (PPS 25). Where selected, sites are considered to have passed parts a) and b) of the exception test, that is:

a) that the development provides wider sustainability benefits to the community that outweigh flood risk, and

b) that the development is on developable previously-developed land, or if it is not on previously developed land, that there are no reasonable alternative sites on developable previously-developed land.

Notwithstanding the above, selected sites in the AAP area will have to also pass part c) of the Exception Test, i.e. a (site-specific) FRA must demonstrate (to the satisfaction of the Environment Agency) that the development will be safe, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

As mentioned previously, some sites in the AAP area contain land in two or more Flood Zones. In these locations it is expected that a sequential test will be applied at a site level to ensure that the more vulnerable uses are located on the lowest Flood Zones.

To pass part c of the Exception Test it is anticipated that in practical terms, appropriate mitigation measures must be put in place and, furthermore, it is likely that appropriate compensatory replacement floodplain storage will be required or other suitable flood risk management measures employed to ensure risk to others is not increased.

Land raising in the flood plain will not usually be regarded as an acceptable solution to enable development. Proposals involving land raising would normally be opposed by the Environment Agency as flood storage and flow paths may be lost, worsening flood conditions elsewhere. However, proposals to raise land and provide compensatory storage elsewhere may be acceptable providing they do not increase the risk of flooding on site or elsewhere, and that there is no environmental loss in terms of appearance or habitat value.

Some of the potential sites in the Town Centre Area Action Plan area are bounded by or have designated 'main' rivers running through them. Where this is the case, no built development will be allowed within eight meters of the top of the bank. Opportunities to remove existing buildings from close proximity from the riverbank are encouraged.

Sustainable Drainage

Rainfall on undeveloped areas either evaporates, is absorbed by plants or drains naturally into streams and rivers over a period of time by infiltrating into the ground or running overland. Areas developed for residential, commercial and other human uses are typically formed of impermeable surfaces such as roofs and roads. No water is intercepted by plants and trees, nor is it able to infiltrate into the ground. This can exacerbate the flood risk. Developed areas need to be drained to remove this incident rainfall.

However, alternative solutions can be developed in line with the ideals of sustainable development. Sustainable Drainage Systems (SUDS) can manage runoff flow rates to reduce the impact of urbanisation on flooding, protect or enhance water quality and provide a multi-functional use of land to deliver biodiversity, landscape and public amenity aspirations and support Ashford's proposed Green and Blue Grid. They do this by dealing with runoff and pollution close to its source and protect water resources from point-source pollution. They may also allow new development in areas where existing sewerage systems are close to full capacity, thereby enabling development within existing urban areas.

It is therefore important that all new developments should provide appropriate sustainable drainage systems (SUDS) for the disposal of surface water so that it is retained either on-site or within the immediate area, or other water retention and flood storage measures. The SUDS 'management train' (otherwise known as source to stream) is a sequential process which aims to deal with surface water runoff locally returning the water to the natural drainage system as near to the source as possible.

Government planning guidance highlights the aims for greenfield and brownfield applications of SUDS in PPS1 and PPS25. The latter (at Annex F10) establishes the key principles in relation to run-off from developments on greenfield and previously developed land that inform the policy approach for Ashford, as detailed in the emerging SUDS DPD.

In the Ashford Growth Area, the Integrated Water Management Study (IWMS) has identified an approach and evidence base for the use of sustainable drainage and has set out respective target run off rates for greenfield developments in different parts of the Growth Area. Therefore, all greenfield developments in the Ashford Growth Area, other than those in the south-west part of the area that are not within the Stour catchment, will be required, through appropriate SUDS features, to achieve a net reduction in surface water runoff below the previous run-off rate to meet the relevant standards specified in the IWMS.

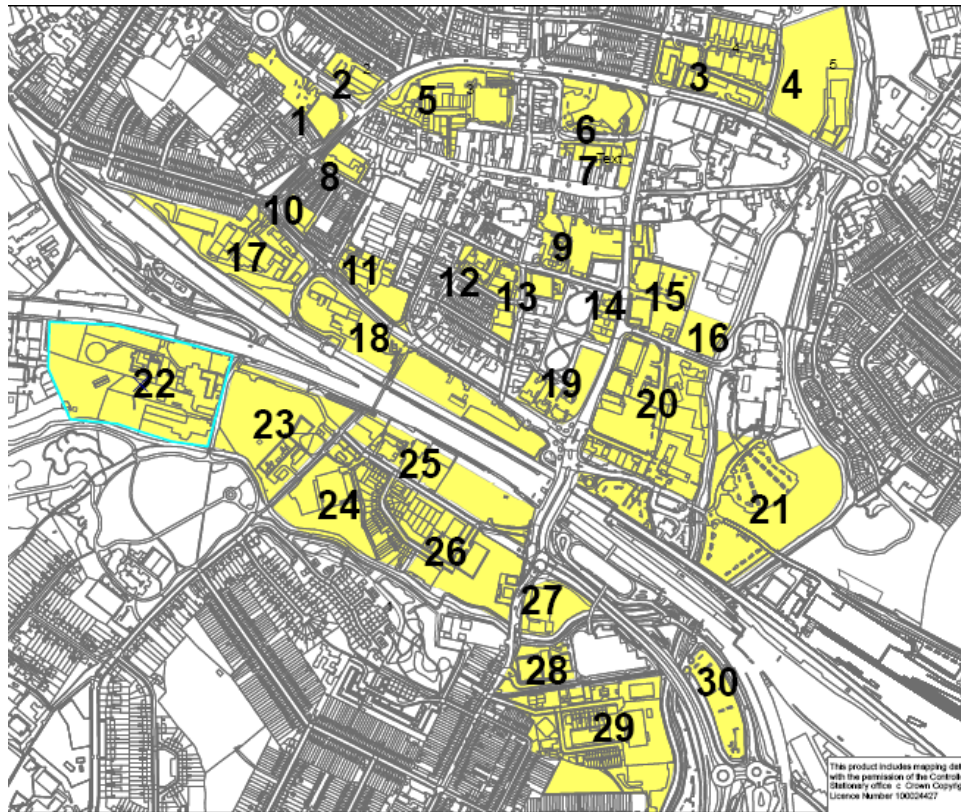
For development on existing greenfield sites within the Town Centre AAP area, compliance with the IWMS requirement to restrict discharge to 4 litres per second per hectare is required.

For development on existing brownfield, previously developed sites within the Town Centre AAP area, compliance with the IWMS requirement to reduce surface water run-off from that arising from the developed site and to encourage using best-endeavours to restrict discharge to 4 litres per second per hectare is required.

Developers will normally be expected to make provision for SUDS on site. However, where this cannot be achieved for developments, developers will be required to make suitable in-lieu financial contributions through Section 106 Agreements or the proposed strategic tariff (subject to the details to be contained within the forthcoming Infrastructure Contributions SPD) for the provision, management and maintenance of 'strategic SUDS' that may provide a sustainable drainage solution for more than one site.

List of sites assessed

The following sites were assessed. These were derived from the Sustainability Appraisals (appendix D).



Sites 1, 2, 3, 5 – 15, 17 – 19 are all located within Flood zone 1.

Site 4 - Partially within flood zone 3. Scope to develop the western part of the site safely benefits in removing existing buildings from Zone 3 and reducing risk. Will required building on Greenfield areas and reclaiming Brownfield lane.

Site 16 - This site is outside of the flood zone, however there is a 8 metre Byelaw margin connected to the Great Stour, which requires Land Drainage Consent should there be any temporary or permanent works or structures be carried out.

Site 20 – Small corner of the site sitting, within flood zone 3. Scope to develop the remainder of this site safely. Benefits could be made be removing riverside building and structure in flood zone 3.

Site 21 - Functional floodplain. Only developments which are classified as 'water compatible' (Table D.2) within PPS25 are feasible for this site. Essential Infrastructure (electricity generating power-stations and grid and primary substations) can be considered but would be subject to the Exception Test.

Sites 22, 23, 24, 25 – Sites north of the new Victoria Way will be safe from flooding. Sites to the south of the new Victoria Way will need to be designed to be flood resistant.

River corridor / functional floodplain to be persevered, as set out in the Statement of Common ground as part of the 2008 Zed Homes appeal.

Site 26 – Partially lying within flood zone 3. Recent Planning permission granted for approximately 280 residential units.

Site 27 - There is some functional floodplain to the south of the boundary, half of the site is situated within flood zone 3a. The northern site is therefore developable for commercial and residential. However, note the 8 metre Bylaw Margin applies here too.

Site 28 - The eastern half of the site is within the functional floodplain, the remaining western side is within the 100 year + climate change extent (zone 3a). The areas outside of the functional floodplain may be suitable for commercial premises which are designed to safely flood (to prevent loss of storage).

Site 29 – Partially within Zone 3 (and Zone 3b). The Environment Agency currently have an objection to Eastmead Avenue. Potential to come forward after local flood risk management scheme (as part of the upper Stour strategic review) is implemented.