



Canterbury District Strategic Flood Risk Assessment (SFRA)

Non Technical Summary

Introduction and Background

Canterbury is an historic city with a national and global reputation that far outweighs its size in both geography and population. The wider Canterbury District also boasts assets of great potential, including the coastal towns of Whitstable and Herne Bay, numerous villages that are often of outstanding historical quality, and a varied beautiful countryside. The District is located in the centre of the East Kent sub-region sharing boundaries with five other local authority areas and covers an area of 310 square kilometres. Parts of the District are low-lying with approximately 15%, including the town centres of the three main urban areas, lying within the Environment Agency's Zone 3a flood risk area.

Flooding can result not only in costly damage to property, but can also pose a risk to life and livelihood. It is essential therefore that future development is planned carefully, where possible away from areas that are most at risk from flooding, and ensuring that it does not exacerbate flooding elsewhere. The SFRA provides an analysis of the main sources of flood risk to the District, together with a detailed means of appraising development allocations and existing planning policies against the risks posed by flooding over this coming century.

Planning Policy Statement 25: Development and Flood Risk (PPS25) requires Local Planning Authorities to apply a risk-based approach to the preparation of their development plans in respect of potential flooding. In simple terms, PPS25 requires local planning authorities to review the variation in flood risk across their District, and to steer vulnerable development (e.g. housing) towards areas of lowest risk. Where development is to be permitted in areas that may be subject to some degree of flood risk, PPS25 requires the Council to demonstrate that there are sustainable mitigation solutions available that will ensure that the risk to property and life is minimised (throughout the lifetime of the development) should flooding occur.

The SFRA is the first step in this process and provides the building blocks upon which the Council's forward planning and development control decisions are made. One of the most pressing issues for the Council is the fact that a large percentage of brownfield sites that have the potential for redevelopment lie within Flood Zone 3.

The primary objective of PPS25 is to steer vulnerable development towards areas of lowest flood risk. The Sequential Test provides clear guidance as to how this should be achieved. In simple terms, the Sequential Test requires that the District is delineated into areas of 'low', 'medium' and 'high' risk, i.e. Zones 1, 2 and 3. It then provides a list of suitable types of land use that should be permitted within each zone, depending upon the perceived vulnerability of the community that will be present day to day within that development. However, all the coastal settlements within the District, lying

within Zone 3, benefit from the protection provided by high quality flood defence infrastructure. Inland, Canterbury also benefits from various river defences and upstream flood storage. Before the completion of the SFRA the degree of risk across these areas was generally un-quantified and therefore it was not possible for the Council to implement the primary objectives of PPS25.

The key objectives of the SFRA are therefore to:

- To collate all known sources of flooding, including tidal, river, surface water (local drainage), sewers and groundwater, that may affect existing and/or future development within the District;
- To examine the impact of an extreme flooding event that exceeds the standard of protection provided by the existing coastal flood defences;
- To quantify the depth, velocity and other key parameters of flood events that result from the overtopping or failure of the existing defences;
- To map the outputs of this analysis in such a way so as to provide clear and precise information at a scale that is appropriate to inform the planning process at both a strategic and site-based level.

Graveney, Seasalter, Reculver and the Lower Stour area comprise the majority of the low-lying area of the District and are primarily devoted to agriculture and nature conservation. However, there are still parts of a number of established towns and villages that are in the flood plain. The future sustainability of these communities relies heavily upon their ability to grow, prosper and where necessary redevelop. For this reason, PPS25 acknowledges that in some cases it is not possible to locate all new development outside of the flood risk area. In this situation, where the local planning authority has identified that there is a strong planning based argument for a development to proceed, it will be necessary for the Council to demonstrate that the Exception Test can be satisfied.

The Exception Test requires that:

1. it can be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk;
2. the development is on developable (defined by PPS3 as a site that is in a suitable location for housing) or previously developed land (commonly known as brownfield land);
3. that a site-specific Flood Risk Assessment demonstrates that the development will be safe, without increasing flood risk elsewhere, and where possible, will reduce flood risk overall.

Effective development control policy is essential to assist the Council to manage flood risk, and to ensure a consistent approach at the planning application stage. This is required to achieve future sustainability within the District with respect to flood risk management and to therefore facilitate this, the SFRA provides detailed information on flood risk throughout the District. In parallel with development control, emergency planning is imperative to minimise the risk to life posed by

flooding within the District. The Council is therefore currently fully reviewing its adopted flood risk response plan in parallel with and taking account of the findings of the SFRA.

Furthermore, the SFRA has been developed building heavily upon existing knowledge with respect to flood risk within the District. The Environment Agency regularly reviews and updates its flood maps and a rolling programme of detailed flood risk mapping within the South East region is currently underway. In addition, much of the major flood defence infrastructure within the District has been upgraded and improved over the last twenty years, with plans for expenditure on further improvements in the near future. These new defences and additional information will reduce risk and improve the current knowledge of flood risk within the District. Consequently this may influence future development control decisions and therefore the information within the SFRA will require updating.

Recommendations

The Council's preferred option for reducing flood risk within its boundaries is to avoid inappropriate development in areas at highest risk within the broad character areas of the District. The planning process should be used to steer more vulnerable development to areas of lower risk and, where development is at higher risk, to ensure that new development is appropriately designed to manage residual risk throughout the lifetime of the development. This approach fully supports the overarching objectives of PPS25 and wider government policy.

The specific policy recommendations that are made by this SFRA to enable the Council to deliver these objectives are as follows:

- To ensure that, in general, new residential development does not take place in areas identified as 'extreme' flood hazard risk by the SFRA climate change hazard maps. Notwithstanding this, the Council will need to ensure that specific provisions are made for residential development to cater for the sustainable development at the coast and within Canterbury city centre and for the redevelopment of Herne Bay town centre. Sites will only be allocated for residential development within Flood Zone 3a where it can be shown that the requirements of the Sequential Test can be met and, if necessary, all stages of the Exception Test;
- To ensure that replacement dwellings located within Flood Zones 2 and 3 reduce risk to life to residents through the use of appropriate design;
- To ensure that flood risk is not increased within the district, any new development will need to be designed such that the peak rate and volume of surface water runoff from the site is not increased above the existing surface water runoff rate. The proposals will also need to meet the requirements of the Council's Drainage Impact Assessment Guidance Note and the surface water management strategy recommendations of PPS25.
- To help reduce the rate and volume of surface water runoff and to improve the quality of the water passed on to watercourses, new development should incorporate the principles of SuDS in its drainage design wherever practically achievable.

- Development in some of the District's seafront areas may be located very close to the shoreline and will therefore be subjected to an increasing risk of flooding and damage from severe wave overtopping, even if located outside of Flood Zones 2 and 3. Consequently, any development that is proposed to take place within 30m of the crest of the seawall will require a site specific Flood Risk Assessment to be submitted. This should be compliant with PPS25 and also address the specific issues of wave overtopping.
- To ensure that all development in Flood Zones 2 and 3 incorporates flood resilient construction techniques. This will reduce the time and cost to recover the building to a habitable standard following a flood event. Specific details are set out in the main SFRA.
- To ensure that any new development does not have an adverse impact on drinking water resources. This can be achieved through the reference to the Groundwater Source Protection Zone maps published by the Environment Agency and by encouraging the use of rainwater harvesting and grey water recycling systems.

Conclusions

Although the Canterbury District is very varied, from the historic city of Canterbury itself to the coastal towns of Whitstable and Herne Bay, together with the contrasting countryside and villages in the rural area, there is some degree of flood risk throughout most of the developed areas. The risk of coastal flooding to the low-lying parts of the District does, however, dominate much of this SFRA, even though there is a history of fluvial and surface water flooding that should not be overlooked, particularly in view of the events of winter 2000/2001.

Through the full and proper implementation of PPS25, the Local Plan and LDF procedures and site-specific FRAs, it will be possible to manage flood risk in a sustainable manner. The re-development of brownfield sites should provide opportunities to reduce overall flood risk, principally through the use of sustainable drainage systems. However, a planning solution to flood risk management should be sought wherever possible steering vulnerable development away from areas affected by flooding in accordance with the PPS25 sequential test.

The District benefits from a comprehensive and well maintained sea defence system, which has been comprehensively upgraded over the last 25 years. There is an adopted Shoreline Management Plan in place as well as Coastal Flood and Erosion Flood Risk Management Strategies, both of which promote and support the long-term investment and, where necessary, improvement in the flood defences in this area to keep pace with climate change and sea level rise. Inland there is an adopted Catchment Flood Management Plan with recommendations to, at minimum, maintain the current standard of flood defence allowing for climate change.

Notwithstanding this, PPS25 requires the SFRA to adopt a precautionary approach to the appraisal of risk and this has meant that the impacts of residual risk events have been examined in great detail. This process has resulted in the analysis of breach and overtopping scenarios and the production of comprehensive flood extent and hazard maps for both current day and for the year 2110 taking into account future climate change.

In addition, detailed information on flood depth and velocity is now readily available for the densely urbanised towns of Herne Bay and Whitstable. In these areas it is not always possible for to locate new development away from the town centre for economic regeneration and other sustainable reasons. The availability of detailed and site specific flood data therefore enables these risks to be better understood and through the use of appropriate design, the potential impacts of flooding can be mitigated.

The SFRA has analysed the risk of flooding at proposed Local Plan and SHLAA sites that have been identified for further testing and through this process has enabled the Sequential Test to be applied. For these sites the SFRA has also considered parts (a) and (b) of the Exception Test. For sites that have not yet been identified through the Local Plan process and for windfall sites the SFRA provides guidance for the completion of site specific FRAs as well as setting out policy recommendations to help manage the risk of flooding within the district.

The risk of flooding to the coastal towns has been recognised by the Council for many years. In response to coastal flooding and erosion risk management strategies produced and adopted by the Council there is a long term commitment to sustain the high standard of protection provided by the District's coastal defences.

This SFRA has also provided specific recommendations for areas that are not included within the Environment Agency's Flood Zones, such as areas known to have flood or drainage problems and locations that could potentially be at risk from wave overtopping.

Alongside the development control role of the SFRA, it should be recognised that emergency planning is imperative to minimise the risk to life posed by flooding within the District. The Council is fully cognisant of this and has recently totally reviewed its civil contingency and emergency response plans as well as drafting a new Local Multi Agency Flood Plan for the District and annually updating its in-house Flood Emergency Plan.

It is recommended that the Canterbury District SFRA is reviewed regularly and the review should address the following key questions:

- Has any major flooding been observed within the District since the previous review?
- Have any amendments to PPS25 or the Practice Companion Guide been released since the previous review and will these impact upon the SFRA?
- Has the Environment Agency issued any major amendments to their flood risk mapping and/or standing guidance since the previous policy review?
- Have any updates been made to the studies that underpin strategic flood risk management within the District, including the Catchment Flood Management Plan, the Shoreline Management Plan, and the Flood and Coastal Erosion Flood Risk Management Strategies?

- Have there been any changes to Planning Policy that could affect the way in which flood risk is managed through the planning process?
- Has Government issued new guidance on climate change predictions?