

London Borough of Southwark Strategic Flood Risk Assessment

A Non-Technical Summary

Objectives

The National Planning Policy Framework (NPPF) and accompanying Planning Practice Guidance emphasise the responsibility of Local Planning Authorities to ensure that flood risk is understood and managed effectively and sustainably throughout all stages of the planning process.

The Strategic Flood Risk Assessment (SFRA) for Southwark aims to facilitate this process by identifying the spatial variation in flood risk across the Borough, allowing an area-wide comparison of future development sites with respect to flood risk considerations.

The overall SFRA should be used to provide an overview of the risk of flooding across the Borough as well as to assist in planning policy formulation, strategic planning, development control and flood risk management. The report additionally contains specific recommendations, for both Southwark Council and local developers with regards to the effective management and mitigation of flood risk, including guidance on the requirements for site specific Flood Risk Assessments and the use of Sustainable Drainage Systems (SuDS).

Sources of Flood Risk

The greatest risk to property and life from flooding within the London Borough of Southwark is as a result of tidal activity within the River Thames. However, the Borough is currently protected from combined tidal and fluvial flooding by the River Thames Tidal Defences, up to the 1 in 1000 year event. The risk is therefore of a residual nature, associated with overtopping or breaching of defences. Excepting the River Thames, there are no other watercourses within Southwark known to present a risk of fluvial flooding.

A potential risk of flooding from other (non-river related) sources exists throughout the Borough, including sewer surcharge and surface water flooding as a result of heavy rainfall and/or blocked drainage systems. Southwark plays a key role in managing this risk as a Lead Local Flood Authority, under the Flood and Water Management Act (2010) and the Flood Risk Regulations (2009).

Areas of the Borough are also thought to be susceptible to elevated groundwater levels, which may additionally interact with and exacerbate these other sources of flood risk. It is expected that changing climate patterns will have a substantial impact on the level of flood risk from all sources within Southwark.

Study Outputs

This SFRA identifies the tidal floodplains associated with the River Thames and presents Flood Zone Maps that delineate the Flood Zones outlined in the NPPF. Breach modelling has additionally been undertaken to enable a greater understanding of the residual risk associated with breaching of the Tidal Defences. The resulting hazard, depth and velocity mapping contained within this SFRA provide further definition of the spatial variation of flood risk within Flood Zone 3.

Mapping has also been produced to illustrate the understanding of spatial distribution of flood risk from all sources across Southwark, along with other key information in effectively managing flood risk. These maps and associated reporting provide the necessary level of detail to facilitate a risk-based approach to planning, as per the NPPF. This process determines the compatibility of various types of development within each Flood Zone, subject to the application of the Sequential and Exception Tests as needed and a site-specific FRA which clearly demonstrate that the site can be safely developed from a flood risk perspective. Guidance with regards to the process is included within the report.

Key Recommendations

A spatial planning solution to flood risk management should be sought wherever possible. As such, flood risk should be an early and primary consideration in strategic planning for developments across the Borough. A sequential approach should be taken to allocating strategic development areas in regions at lowest flood risk, taking into account vulnerability of land use. Consideration should also be given to strategic allocation of open space and preserving and expanding river corridors to create space for flooding to be managed effectively. In consulting on and determining development applications, Southwark Council must ensure that all proposed developments have considered flood risk management from the planning stage, including site specific flood risk assessments where required.

Given the position of the Borough, adjacent to the River Thames, it is highly reliant on flood defences. Ongoing maintenance of these defences is critical, and priority should be given to safeguarding the Standard of Protection (SoP) provided by defences over the lifetime of any development. Additionally, consideration should be given to the specific recommendations of the Environment Agency's Thames Estuary 2100 (TE2100) plan in requiring reduction of current and future flood risk through raising, maintaining and enhancing flood defences. Existing corridors of land along the river frontage should be safeguarded and opportunities taken to set back development to enable sustainable and cost effective flood risk management, including upgrading of river walls and embankments and landscape, amenity and habitat improvements.

Despite the high SoP provided by the Borough, there is a residual risk through breaching or overtopping of defences. This should be managed through flood resistant and resilient design and protection measures. Flood awareness and robust emergency planning and response will also be critical to sustainable ongoing flood risk management.

In the future, climate change is anticipated to have an impact on all sources of flood risk within the Borough. It is important that planning decisions recognise the potential risk that increased runoff poses to property and plan development accordingly so that future sustainability can be assured. Robust surface water management, including the use of Sustainable Drainage Systems (SuDS), will be critical to ensuring sustainability. It is recommended that runoff rates from new development be restricted to greenfield runoff rates, wherever possible, and managed in line with the SuDS hierarchy.

Next Steps

This Level 1 SFRA report will be complemented by further detailed assessment of the allocated development sites within the Borough, during the Level 2 SFRA.

In order for this SFRA to serve as a practical planning tool now and in the future, it is important that the report is adopted as a 'living document' and is reviewed periodically in light of emerging policy directives and an improving understanding of flood risk within the Borough.