



## **Planning policy and flood risk, a sustainable insurance future in the Thames Gateway?**

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Planning policy is a valuable tool in mitigating flood risk through appropriate land use measures and promoting long term sustainability. However, the UK still advances development within areas which are designated flood risk zones. This is most apparent in the Thames Gateway, Europe's largest regeneration project, with 160,000 new homes planned by 2016. A significant number of these developments are located on Thames tidal floodplain, which brings into question our approach to land use planning, as well as addressing how the developments themselves are adapted to mitigate flood risk. In addition, the insurance industry agreement with the government comes to an end in 2013, which raises the issues of how insurance will be delivered after this date, specifically if major new developments continue to be built in high risk areas.

This research project quantifies what major developments are going ahead in two areas of the Gateway and contextualises the planning process in relation to flood risk, both of which feed into flood insurance sustainability in the UK context.

The commercial flood model, Flowroute, is used to develop flood risk maps for the areas of Barking and Dagenham and the Medway with major new developments included to address the future footprints at risk from fluvial and tidal flooding. The two areas have been chosen based on their characteristics and location within the area, both susceptible to fluvial and tidal events yet major hubs of regeneration. What is planned in these areas is considered and what is at risk under several differing scenarios is presented. These include usage of brownfield sites (previously developed land) and future developments to understand how the areas will be affected in each of the different scenarios. In addition, the new developments at risk are analysed to determine ground floor uses – an important aspect of vulnerability analysis as this is viewed distinctly between planners and insurers. It is acknowledged that although both areas are protected by flood defences, the residual risk still remains high and the requirement for analysis and understanding of the areas is key to addressing this risk. The contextual analysis of planning involves presenting the qualitative understanding of how the linkage between insurance, flood risk and planning has evolved and what we can expect from several of the main stakeholders in the process into the future. This research aims to provide understanding of the relationship between the interconnected factors of planning policy, flooding and insurance with a view to providing interested parties, in particular planners and insurers, a new view towards what exactly is being built and their correlation with highly vulnerable flood risk areas.