

Executive Summary

This document forms a Surface Water Management Plan (SWMP) for Southend-on-Sea Borough Council, and is a revision to the draft SWMP produced in 2011. The SWMP has been updated to align with improved flood risk information and to act as an evidence base to the Southend-on-Sea Local Flood Risk Management Strategy and Flood Risk Management Plan.

The SWMP has been undertaken following a four phase approach based on the methodology set out in Defra's SWMP Technical Guidance document, published in March 2010. These four phases comprise of: Phase 1 – Preparation; Phase 2 – Risk Assessment; Phase 3 – Options; and Phase 4 – Implementation and Review. **This document covers Phases 2, 3 and 4 of this process and should be read in conjunction with the Phase 1 study, which was completed by URS Scott Wilson in April 2010.**

Phase 1 of the SWMP focussed on preparing and scoping the requirements of the study. Key outcomes included the collection and review of surface water data from relevant stakeholders, building on existing partnerships between organisations responsible for local flood risk management and setting out how these stakeholders will be engaged throughout the duration of the study. Phase 1 also included a high-level analysis of areas at risk of surface water flooding as well as an initial assessment of the mechanisms of flooding.

As part of the Phase 2 (Risk Assessment), the updated Flood Map for Surface Water (uFMfSW) provided by the Environment Agency, has been mapped and interrogated across the entire study area for a range of return periods to identify areas where flooding is likely to occur during an extreme rainfall event. The analysis of surface water flood risk across Southend-on-Sea has shown that approximately 3,100 residential properties could be at risk of surface water flooding from a rainfall event with a 1% Annual Exceedance Probability (AEP). An assessment of flood risk from other local sources, including groundwater and ordinary watercourses, has also been undertaken as part of this phase of work. The predicted consequences of flooding to property, businesses or infrastructure has been analysed and those areas identified to be at more significant risk have been delineated into Critical Drainage Areas (CDAs).

Across the Southend-on-Sea administrative area six CDAs have been identified (Figure 0-1). These CDAs have been taken forward to Phase 3 (Options) and for each CDA, site-specific options have been identified that could help alleviate the risk of surface water flooding. Examples of such options include the potential implementing of flood storage areas within Southchurch Park, and the creation of designated overland flow routes. In addition, a number of Borough wide options have been put forward, including property level protection measures and revisions to current planning policy.

This document also establishes a long-term Action Plan, under Phase 4 (Implementation and Review), to manage surface water. The Action Plan will be used to influence future capital investment, maintenance, public engagement and education, land-use planning, emergency planning and future developments.

Figure 0-1: Identified CDAs within Southend-on-Sea

