



**REPORT of  
HEAD OF PLANNING SERVICES**

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to  
**PLANNING AND LICENSING COMMITTEE  
14 NOVEMBER 2013**

**ADOPTION OF THE MALDON AND HEYBRIDGE SURFACE WATER  
MANAGEMENT PLAN**

**1. PURPOSE OF THE REPORT**

- 1.1 A Surface Water Management Plan (SWMP) for Maldon and Heybridge was signed off by Councillor John Jowers, Essex County Council (ECC) Cabinet Member for Libraries, Communities and Planning on October 1 2013. The plan has been produced in consultation with stakeholders, including Maldon District Council and outlines the preferred surface water management strategy for Maldon and Heybridge.

**2. AREA FOR DECISION / ACTION**

This report is for Members' information only.

**2.1 Background**

- 2.1.1 Over the past year Essex County Council, in its role as Lead Flood Risk Authority has been working on a Surface Water Management Plan (SWMP) for Maldon and Heybridge. The work was carried out in consultation with stakeholders including Officers and Members of Maldon District Council, the Environment Agency and Anglian Water.
- 2.1.2 ECC Flood and Water Management Team were keen to publicise the SWMP to the public in a controlled way. Two events have taken place. The first, aimed at Heybridge residents, was at Heybridge Primary School on 29 October 2013. Maldon followed on Friday 1 November at the Plume School. The events were attended by a range of stakeholders including Essex County Council's Flood & Water Management Team, the Environment Agency, Anglian Water, Essex County Fire & Rescue Service, Essex Highways and MDA Community Flood Consultants. Representatives from Maldon District Council included Officers from the Planning Services, Countryside & Coast, Environmental Protection and Emergency Planning teams.

**2.2 Links to the Maldon District Draft Local Development Plan**

- 2.2.1 The Maldon and Heybridge Surface Water Management Plan forms one of the key evidence base documents underpinning the emerging Local Development Plan (LDP) for the District, and will also form a key consideration for the development of the Garden Suburb Masterplans at South Maldon and North Heybridge.

- 2.2.2 Policy S4 of the Draft LDP relates to Maldon and Heybridge Strategic Growth, and includes the requirement for development at the Garden Suburbs / Strategic Allocations to demonstrate that:

‘flood risk management and surface water mitigation measures are integrated as an integral part of the growth areas as a whole in accordance with, but not limited to, the Maldon and Heybridge Surface Water Management Plan.’

- 2.2.3 Policy D5 (Flood Risk and Coastal Management) also requires development proposals to be in compliance with, and contribute positively towards delivering the aims and objectives of the Maldon and Heybridge Surface Water Management Plan. In addition, the Draft Masterplan Briefs prepared for the Garden Suburbs at South Maldon and North Heybridge make reference to the Maldon and Heybridge Surface Water Management Plan. The Plan will help to provide a consistent evidential basis for the progression of detailed surface water management plans and strategies being developed by relevant developers, landowners, Essex County Council, and the Environment Agency in response to the Masterplan Briefs issued by Maldon District Council. It may also assist partners in securing external funding sources towards relevant projects over the longer term to support development and address longer-term problems with flooding and drainage.

### **2.3 Surface Water Management Plan Executive Summary**

- 2.3.1 The full report published by Essex County Council is available to view in the Members’ Room.

- 2.3.2 The document forms the Surface Water Management Plan (SWMP) for the towns of Maldon and Heybridge. The report outlines the predicted risk and preferred surface water management strategy for Maldon and Heybridge. In this context surface water flooding describes flooding from sewers, drains, groundwater, and runoff from land, small watercourses and ditches that occurs as a result of heavy rainfall.

- 2.3.3 A four phase approach has been undertaken in line with the Department for Environment, Food and Rural Affairs’ (DEFRA) SWMP technical guidance documentation (2010). These are:

- Phase 1 – Preparation;
- Phase 2 – Risk Assessment;
- Phase 3 – Options; and
- Phase 4 – Implementation and Review.

#### **2.3.4 Phase 1: Preparation**

- 2.3.4.1 Phase 1 work involved the collection and review of surface water information from key stakeholders and the building of partnerships between key stakeholders responsible for local flood risk management.

### 2.3.5 Phase 2: Risk Assessment

2.3.5.1 As part of the Phase 2 Risk Assessment, direct rainfall modelling has been undertaken across the study area for five rainfall event return periods. The results of this modelling have been used to identify Local Flood Risk Zones (LFRZs) where surface water flooding affects properties, businesses and/or infrastructure. Those areas identified to be at more significant risk have been delineated into Critical Drainage Areas (CDAs) representing one or several LFRZs as well as the contributing catchment area and features that influence the predicted flood extent.

2.3.5.2 Within the study area, five (5) CDAs have been identified. Analysis of the number of properties at risk of flooding has been undertaken for the rainfall event with a 1 in 100 probability of occurrence in any given year. A review of the results predicts that 772 properties in the study area could be at risk of surface water flooding of a depth greater than 0.1m during a 100 year rainfall event (above an assumed 0.1m building threshold).

### 2.3.6 Phase 3: Options Assessment

2.3.6.1 There are a number of opportunities for measures to be implemented across the catchment to reduce the impact of surface water flooding. Ongoing maintenance of the drainage network and small scale improvements are already undertaken as part of normal operation within the study area.

2.3.6.2 It is important to recognise that flooding within the catchment is not confined to just the CDAs, and therefore, there are opportunities for generic measures to be implemented through the establishment of a policy position on issues including the widespread use of water conservation measures such as water butts and rainwater harvesting technology, use of swales, permeable paving, bioretention car park pods and green roofs. In addition, there are study area wide opportunities to raise community awareness.

2.3.6.3 For each of the CDAs identified within the study area, site-specific measures have been identified that could be considered to help reduce the risk of surface water flooding. These measures were subsequently short listed to identify a potential preferred option for each CDA.

2.3.6.4 Pluvial modelling undertaken as part of the SWMP has identified that flooding is heavily influenced by existing and historic watercourse valleys, and impacts a number of regionally important infrastructure assets. It is recommended that in the short-to-medium term Maldon District and Essex County Councils:

- Engage with residents regarding the flood risk in their areas, to make them aware of their responsibilities for property drainage (especially in the CDAs) and steps that can be taken to improve flood resilience;
- Provide information to residents, to inform them of measures that can be taken to mitigate surface water flooding to/around their property;
- Prepare and implement a communication strategy to effectively communicate and raise awareness of surface water flood risk to different audiences using a clearly defined process for internal and external communication with stakeholders and the public; and

- Improve maintenance regimes, and target those areas identified to regularly flood or known to have blocked gullies / culverts / watercourses.

### 2.3.7 Phase 4 Implementation & Review

2.3.7.1 Phase 4 establishes a long-term Action Plan for ECC and other Risk Management Authorities to assist in their roles under the Flood & Water Management Act (FWMA) 2010 to lead in the management of surface water flood risk across the catchment. The purpose of the Action Plan is to:

- Outline the actions required to implement the preferred options identified in Phase 3;
- Identify the partners or stakeholders responsible for implementing the action;
- Provide an indication of the priority of the actions and a timescale for delivery; and
- Outline actions required to meet the requirements of ECC and other Risk Management Authorities as delegated by Essex County Council (LLFA) under the FWMA 2010.

2.3.7.2 The SWMP Action Plan is a ‘living’ document, and as such, should be reviewed and updated regularly, particularly following the occurrence of a surface water flood event, when additional data or modelling becomes available, following the outcome of investment decisions by partners and following any additional major development or changes in the catchment which may influence the surface water flood risk within the District.

## 3. **IMPACT ON CORPORATE GOALS**

3.1 The Surface Water Management Plan would support corporate objectives by providing technical detail which is essential to our investigation into funding opportunities to mitigate flood risk.

## 4. **IMPLICATIONS**

- (i) **Impact on Customers** – The Surface Water Management Plan will form part of the Local Development plan evidence base which will have an impact on future planning for the Maldon District.
- (ii) **Impact on Equalities** – None identified.
- (iii) **Impact on Risk** – The successful implementation of the Plan is required to reduce and manage future flood risk in Maldon and Heybridge.
- (iv) **Impact on Resources (financial)** – There are resource implications for Emergency Planning, Environmental Health and Planning as part of phase 4 of the SWMP. The technical detail published as part of the SWMP is a pre-requisite to bidding for central funds for flood alleviation projects through Flood Grant in Aid.

- (v) **Impact on Resources (human) – None**
- (vi) **Impact on the Environment** – The SWMP could potentially have a beneficial impact on future planning for the Maldon District.

## **5. CONCLUSIONS**

- 5.1 This report updates Members on the adoption of the Surface Water Management Plan for Maldon and Heybridge. The document is now available for viewing in the Members' Room. Preliminary modelling identified five CDAs for further studies, these CDAs were investigated, then assessed to produce options for managing the flood risk in these areas.
- 5.2 The outcomes of the document will be implemented in departments across the Council, including Emergency Planning and Environmental Health, but its main use in the immediate future will be as a document supporting the Local Development Plan.

## **6. RECOMMENDATION**

That the adoption of the Surface Water Management Plan by Essex County Council, be noted.

### Background Papers:

Surface Water Management Plan, 2013 Essex County Council. Flood Risk Management Strategy, 2012 Essex County Council.  
Maldon District Draft LDP, 2013

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