

**REPORT TO: CITY DEVELOPMENT COMMITTEE – 28 OCTOBER 2013**  
**REPORT ON: FLOOD RISK MANAGEMENT (SCOTLAND) ACT 2009**  
**REPORT BY: DIRECTOR OF CITY DEVELOPMENT**  
**REPORT NO: 414-2013**

## **1 PURPOSE OF REPORT**

- 1.1 To advise Committee of progress towards production of a Flood Risk Management Plan for the Tay Estuary and Montrose Basin Local Plan District to be delivered in fulfilment of the requirements of the Flood Risk Management (Scotland) Act 2009.
- 1.2 To seek approval of the proposed governance arrangements in respect of Flood Risk Management Strategies being prepared by SEPA.

## **2 RECOMMENDATION**

- 2.1 It is recommended that the Committee:-
  - a notes the progress being made towards production of the statutory Flood Risk Management Plan.
  - b approves the proposed governance arrangements in respect of Flood Risk Management Strategies being prepared by SEPA.

## **3 FINANCIAL IMPLICATIONS**

- 3.1 Financial implications are limited to staff costs which are contained within the finance made available by Scottish Government for local authorities to meet their Regulatory responsibilities under the Flood Risk Management (Scotland) Act 2009.

## **4 BACKGROUND**

- 4.1 The Flood Risk Management (Scotland) Act 2009 places duties on SEPA, and responsible authorities to manage flooding in a sustainable manner. The responsible authorities are Scottish Water, Local Authorities and any other public bodies and office holders designated as such by Scottish Government.
- 4.2 The measures by which flooding in Dundee City will be managed will be described in the Local Flood Risk Management Plan for the Tay Estuary and Montrose Basin Local Plan District to be published by June 2016.
- 4.3 Flooding within Dundee occurs from a variety of sources – fluvial (rivers/burns), pluvial (rain), out of sewer and coastal.
- 4.4 To understand the complex nature of the interaction of above and below ground flooding a series of hydraulic models is required to provide the necessary intelligence to produce the relevant parts of the Flood Risk Management planning. Dundee City Council has partnered with Angus Council and Scottish Water in undertaking an Integrated Catchment Study to produce such hydraulic models and use these to identify possible flood reduction measures. (reference Report No 201-2012 approved by City Development Committee on 25 June 2012).

- 4.5 To understand the possible consequences of coastal flooding and identify measures to protect against flooding events, Dundee City Council engaged Mott MacDonald to carry out a detailed Coastal Study covering the whole of Dundee's maritime frontage. (reference Report No 357-2008 approved by City Development Committee on 15 August 2008).
- 4.6 Section 27 of the Act places a duty on SEPA to prepare Strategies for the flood risk management of Potentially Vulnerable Areas identified through national flood risk assessment. These Strategies will describe measures required to manage flood risk at a local level and subsequently described in detail in the Local Flood Risk Management Plans.
- 4.7 The Strategies prepared by SEPA will also identify, within the Local Plan Districts, those areas most at risk from surface water flooding and these will require the preparation of a Surface Water Management Plan.
- 4.8 The Strategies will be subject to public consultation for 3 months from 22 December 2014 and thereafter published by December 2015.

## **5 CURRENT SITUATION**

- 5.1 The survey and data collection phase of the Integrated Catchment Study is nearing completion and building of the hydraulic computer model is underway. The results of the study are due in December 2014.
- 5.2 The Coastal Study has been completed and its conclusions were reported to City Development Committee on 19 August 2013 ( Report No 256-2013 refers) Committee also approved that the City Engineer progress prioritised measures as funding becomes available. Further Reports will be presented to Committee as this work progresses.
- 5.3 The next stage in the production of Surface Water Management Plans and thereafter Flood Risk Management Plans is the production of Flood Risk Management Strategies by SEPA in partnership with Scottish Water and relevant Local Authorities.

## **6 FLOOD RISK MANAGEMENT STRATEGIES**

- 6.1 There are three main preparatory stages in developing Flood Risk Management Strategies, which are listed below:-
- 1 Catchment Characterisation
  - 2 Objective Setting
  - 3 Short List of Options

### **6.2 Catchment Characterisation**

This is an overview of the Local Plan Districts, and the catchments and Potentially Vulnerable areas within them. This will include:-

- i A description of the natural characteristics of the LPD (hydrology, topography, land use, the built environment, urban centres, geomorphology, economic activity, environmental and cultural sensitivity etc.).

- ii A summary of the natural state of the fluvial and coastal environment (including erosion and sediment transportation and possible consequences of alteration or enhancement of the natural environment (Section 20 of the FRM Act) and opportunities or constraints to natural flood management.
- iii A review of existing flood risk management measures.
- iv A summary of the current risk and damages to receptors in each catchment. Receptors can be residential properties, businesses, community facilities infrastructure, travel disruption, cultural heritage or environmentally sensitive sites. This summary will include a description of the flooding impacts for a range of storm return periods for each LPD, catchment, coastal area and PVA based on:-
  - The sources of flooding
  - The receptors which are at risk and the concentration for these receptors
  - The economic, social and environmental impact of flooding
  - The impact of climate change

The key output at this stage is a characterisation for each LPD broken down by catchments and PVA's. This output is due by 13 December 2013.

**Characterisation is essentially factual. It is proposed that authority is delegated to the City Engineer to agree this element of the Strategy in respect of Dundee City.**

### 6.3 Objective Setting

The second stage is the identification of objectives to address flood risk. These will be set around the principles of avoid, protect and prepare.

- **Avoid** an increase in surface water flood risk to people, economy and the environment.
- **Protect** affected receptors to reduce overall likelihood of surface water flooding.
- **Prepare** for possible flooding to reduce the subsequent impact of surface water flooding

Initial objectives for flood risk management will be based on the characterisation exercise. These initial objectives will be aspirational so as not to limit the subsequent selection and appraisal of measures to meet these objectives. The majority of objectives will be set at the scale of the PVA's. Where PVA's contain multiple flooding issues, objectives will be set for each significant flooding issue identified (ie where more than 50 properties are at risk).

It is important to note that the initial objectives will be refined further based on the outcome of the detailed appraisal and prioritisation work, which will evaluate what is practical and feasible.

Objectives will require to be **SMART** ie specific, measurable, achievable, relevant to reducing flood risk, and time-bound by deadline setting.

Initial objectives are due to be confirmed by 31 January 2014.

**It is proposed that the City Engineer prepares appropriate objectives for Dundee City and submits them for approval by City Development Committee.**

#### 6.4 Short List of Measures

A long list of measures to meet the determined objectives will be screened to remove measures which are not feasible from a technical, legal or financial perspective to arrive at a short list of measures for inclusion in Surface Water Management Plans and Local Flood Risk Management Plans. Derivation of the short list will be based on expert judgement and where there is doubt measures will be retained for further evaluation and appraisal. All decisions reached on the short list will be clearly set out and recorded.

The short list of measures is due to be determined by 30 June 2014.

**It is proposed that the City Engineer prepares a short list of sustainable flood risk measures for Dundee City and submits this for approval by City Development Committee.**

## 7 **POLICY IMPLICATIONS**

- 7.1 This Report has been screened for any policy implications in respect of Sustainability, Strategic Environmental Assessment, Anti-Poverty, Equality Impact Assessment and Risk Management.

There are no major issues.

## 8 **CONSULTATIONS**

- 8.1 The Chief Executive, the Director of Corporate Services and Head of Democratic and Legal Services have been consulted and are in agreement with the contents of this report.

## 9 **BACKGROUND PAPERS**

- 9.1 The following papers are referred to in this Report:-

- a Report 201-2012: Flood Risk Management (Scotland) Act 2009
- b Report 357-2008: Dundee Flood Studies
- c Report 256-2013: Coastal Flood Study Stage 2

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15 October 2013

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