

**REPORT TO: CITY DEVELOPMENT COMMITTEE – 23 FEBRUARY 2015**

**REPORT ON: FLOOD RISK MANAGEMENT (SCOTLAND) ACT 2009**

**REPORT BY: DIRECTOR OF CITY DEVELOPMENT**

**REPORT NO: 40-2015**

## **1 PURPOSE OF REPORT**

- 1.1 To advise Committee of progress towards the 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 draft Delivery Plans for the two Potentially Vulnerable Areas which cover Dundee City which will be published for consultation in March 2015.

## **2 RECOMMENDATION**

- 2.1 It is recommended that Committee:-
  - a notes the progress being made towards production of the statutory Flood Risk Management Plan for the Tay Estuary and Montrose Basin Local Plan District.
  - b approves the draft Delivery Plans for the two Potentially Vulnerable Areas which cover Dundee City and which will be published for consultation in March 2015.

## **3 FINANCIAL IMPLICATIONS**

- 3.1 At this time 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 other 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 Reference is made to Article I of the City Development Committee on 25 June 2014 (Report No 201-2012 refers) where Committee was advised of the procedures and responsibilities placed on responsible authorities for the production of Flood Risk Management Plans.
- 4.3 SEPA are required to prepare Flood Risk Management Strategies for each Local Plan District. There are 14 Local Plan Districts in Scotland and Dundee is contained within the Tay Estuary and Montrose Basin Local Plan District.
- 4.4 Local Authorities, working in partnership with Scottish Ministers, SEPA, Scottish Water and other Local Authorities, are required to produce a Local Flood Risk Management Plan which develops the Strategies prepared by SEPA into a list of measures to reduce flood risk within the relevant Local Plan District.

## **5 CURRENT SITUATION**

- 5.1 SEPA published the first part (Characterisation) of their Flood Risk Management Strategies for each of the Local Plan Districts on 22 December 2014.
- 5.2 The remaining parts of the Strategies, which are Objectives and Measures, will be published by SEPA for consultation in March 2015.

5.3 Draft Delivery Plans for Dundee City Council which describe the measures which may feature in the Local Flood Risk Management Plan have been prepared by the City Engineer for approval prior to their publication for public consultation in parallel with the SEPA Flood Risk Management Strategies in March 2015.

5.4 Separate draft Delivery Plans have been prepared for the two Potentially Vulnerable Areas which cover Dundee. The draft Delivery Plans are attached as an Appendix to this Report.

## **6 CONSULTATION**

6.1 On release of the SEPA Flood Risk Management Strategies and the draft Delivery Plans, consultation questions will be published by SEPA and a national campaign will be launched to raise awareness of the consultation.

6.2 The consultation will be hosted on Citizen Space, a widely used tool for public sector consultations. Information will be presented in an easy to understand way by allowing users to search for their area of interest and related documents by using a map or postcode search. Information will be broken down into Local Plan Districts, Potentially Vulnerable Areas and sources of flooding.

6.3 The consultation will be for anyone who has an interest in how flooding is to be tackled in Scotland and how flooding impacts on Scotland's communities. In particular, the consultation will be of interest to:

- Members of the public
- Local authorities and other responsible authorities under the FRM Act
- Emergency Responders
- Flood and resilience communities
- Environmental organisations, such as Scottish National Heritage and Scottish Environment Link
- Transport organisations
- Health bodies.

## **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 None.

Mike Galloway  
Director of City Development

Fergus Wilson  
City Engineer

FW/RGW/MS

11 February 2015

Dundee City Council  
Dundee House  
Dundee

**Tay Estuary and Montrose Basin (Potentially Vulnerable Area 07/13) DUNDEE COASTLINE**

Action	Action ID	Description	Status and Timing	Funding	Responsibility
<b>ONGOING AND CONFIRMED ACTIONS. Actions that are either underway or where the funding has been confirmed for 2016-2021.</b>					
Maintenance of existing flood protection schemes	70340100 70350100 70360100 70370100	Existing defences along the coast provide a level of protection to residential and non-residential properties and people	Ongoing	Dundee City Council	Dundee City Council
Construction of Direct flood Defences	70341400 70351400 70361300 70371400	Within Dundee, the potential to construct direct defences has been identified to reduce the risk to residential and non-residential properties and people from a medium likelihood flood event.	Design is complete for raising the sea wall at the Central Waterfront with a view to construction in 2015/16. Further designs are being progressed as prioritised in the Coastal Study for Dundee with a view to progressing as funding becomes available.	Design is being funded by Dundee City Council. Funding for such coastal management action has not as yet been identified.	Dundee City Council
Coastal management	70351300 70361300	Coastal management actions aim to reduce the risk of coastal flooding using designed materials and structures. The actions reduce the impact of waves and erosion by modifying wave action or acting as a barrier to increasing sea levels.	A Coastal Study commissioned by Dundee City Council has identified opportunities along the Broughty Ferry esplanade coastline to reduce wave impact and erosion. Design of extension to existing rock revetments has been progressed with a view to construction in 2015/16.	Dundee City Council	Dundee City Council
Wave attenuation	70350800	Wave attenuation actions use the	Designs are being	Design has been funded	Dundee City Council

Action	Action ID	Description	Status and Timing	Funding	Responsibility
	70360800	natural characteristics of different types of coastal land cover to either reduce the impact of waves and coastal erosion or to act as a physical barrier to tidal waters	progressed for the enhancement of the dune areas of Broughty Ferry beach to protect against coastal erosion and reduce flood risk.	by Dundee City Council. Funding for such coastal management action has not as yet been identified.	
Modelling and other assessments to improve knowledge of flood hazards and impacts	70342200 70352200 70362200 70372200	Improved knowledge of the risks from different events helps to develop plans to avoid or mitigate future flooding to sensitive areas.	Dundee City Council is working with Scottish Water, SEPA, Scottish Government, Angus Council, and Perth and Kinross Council on an Integrated Catchment Study to identify flood risk from pluvial, coastal and fluvial events and subsequently develop measures to reduce the risk of flooding.	The Study is being funded by Dundee City Council, Scottish Water, Angus Council and Perth and Kinross Council.	Dundee City Council, Scottish Water, SEPA, Scottish Ministers, Angus Council, and Perth and Kinross Council.

**POTENTIAL ACTIONS.** The actions below are being consulted upon to support the process of identifying preferred actions. Preferred actions may not be able to be implemented during the period 2016-2021 due to project lead-in times and / or funding constraints.

Relocation of properties/infrastructure away from flood risk areas	70340200 70350200	No properties have been identified to be at risk in a high likelihood event and therefore suitable for relocation.			
Wave attenuation	70340800 70370800	Wave attenuation actions use the natural characteristics of different types of coastal land cover to either reduce the impact of waves and coastal erosion or to act as a physical barrier to tidal waters.	Other than Broughty Ferry to Monifieth coastline which is being actioned as above, the rest of the Dundee City coastline has hard defences in place. There is, therefore, no further opportunity for wave attenuation		Dundee City Council

Action	Action ID	Description	Status and Timing	Funding	Responsibility
Coastal management	70341300 70371300	Coastal management actions aim to reduce the risk of coastal flooding using designed materials and structures. The actions reduce the impact of waves and erosion by modifying wave action or acting as a barrier to increasing sea levels.	A Coastal Study commissioned by Dundee City Council has identified opportunities along the Dundee City coastline, notably at the airport and Riverside Nature Park, to reduce wave impact and erosion. Funding for such coastal management actions has not as yet been identified.		Dundee City Council
Property level protection	70341700 70351700	Property Level protection can reduce flood impact by restricting water entering a property, or using construction techniques which are resilient to flood water. It is most beneficial for flood depths < 0.6 metres in areas of high probability flooding. Properties have been identified to be at risk in a high likelihood flooding event and may therefore be suitable for property level protection	Targeted property level protection is a potential option currently undergoing further analysis in terms of feasibility, benefit and cost. Should this be identified as a viable option funding will have to be identified from Dundee City Council budgets or the funding settlement from the Scottish Government for the period 2016-2021 or wholly/in part by the property owner.		Dundee City Council
Site protection plans	70342100 70352100	Site protection plans are developed to identify whether normal operation of a facility can be maintained during an event. This may be due to existing protection or resilience of the facility or the network.	This is a potential action identified through SEPA's strategic option appraisal. It is the responsibility of any private landowner or business in a flood risk area to take measures to protect themselves and as such they should develop their own plans with support from Dundee City Council flood staff.		Individual land owners and business owners
Flood warning schemes	70341800 70351800 70361800	Flood warning actions enable people and organisations to prepare for an event. They enable the risk of the event to be reduce	This is a potential action identified through SEPA's strategic option appraisal. Further work will be required to identify feasibility of this action. Should this be identified as a viable option funding will have to be		SEPA

Action	Action ID	Description	Status and Timing	Funding	Responsibility
		by moving people / possessions out of the floodplain and by placing temporary barriers to reduce flooding impacts.	identified from Dundee City Council budgets or the funding settlement from the Scottish Government for the period 2016-2021		

**TAY ESTUARY AND MONTROSE BASIN (Potentially Vulnerable Area 07/11) DIGHTY WATER CATCHMENT AREA**

Action	Action ID	Description	Status and Timing	Funding	Responsibility
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**ONGOING AND CONFIRMED ACTIONS. Actions that are either underway or where the funding has been confirmed for 2016-2021.**

Modelling and other assessments to improve knowledge of flood hazards and impacts	70272200 70282200	Improved knowledge of the risks from different events helps to develop plans to avoid or mitigate future flooding to sensitive areas.	Dundee City Council is working with Scottish Water, SEPA, Scottish Government, Angus Council, and Perth and Kinross Council on an Integrated Catchment Study to identify flood risk from pluvial, coastal and fluvial events and subsequently develop measures to reduce the risk of flooding.	The Study is being funded by Dundee City Council, Scottish Water, Angus Council and Perth and Kinross Council.	Dundee City Council, Scottish Water, SEPA, Scottish Ministers, Angus Council, and Perth and Kinross Council.
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**POTENTIAL ACTIONS. The actions below are being consulted upon to support the process of identifying preferred actions. Preferred actions may not be able to be implemented during the period 2016-2021 due to project lead-in times and / or funding constraints.**

Relocation of properties/infrastructure away from flood risk areas	70270200	No properties have been identified to be at risk in a high likelihood event and therefore suitable for relocation.			Dundee City Council
River or floodplain restoration	70270600 70280600	Upstream of Dundee, land with the potential to be used for river or floodplain restoration has been identified. This could offer a limited reduction in flood risk along the Lundie Burn, Dighty Water and other watercourses for a high likelihood event.	This is a potential action identified through SEPA's strategic option appraisal. Further work will be required to identify feasibility of this action. Should this be identified as a viable option funding will have to be identified from Angus Council and/or Dundee City Council budgets or the funding settlement from the Scottish Government for the period 2016-2021.		Angus Council/Dundee City Council

Action	Action ID	Description	Status and Timing	Funding	Responsibility
Sediment Management	70270700	Sediment management can help control the sediment balance in the catchment, maintain channel capacity and reduce the impact of siltation at structures and other key areas.	This is a potential action identified through SEPA's strategic option appraisal. Further work will be required to identify feasibility of this action. Should this be identified as a viable option funding will have to be identified from Dundee City Council budgets or the funding settlement from the Scottish Government for the period 2016-2021.		Dundee City Council
Construction of direct flood Defences	70271400 70281400	Within Dundee, the potential to construct direct defences has been identified to reduce the risk to residential and non-residential properties and people from a medium likelihood flood event.	This is a potential action identified through SEPA's strategic option appraisal. Further work will be required to identify feasibility of this action. Should this be identified as a viable option funding will have to be identified from Dundee City Council budgets or the funding settlement from the Scottish Government for the period 2016-2021.		Dundee City Council
Property level protection	70271700	Property Level protection can reduce flood impact by restricting water entering a property, or using construction techniques which are resilient to flood water. It is most beneficial for flood depths < 0.6 metres in areas of high probability flooding. Properties have been identified to be at risk in a high likelihood flooding event and may therefore be suitable for property level protection.	Targeted property level protection is a potential option currently undergoing further analysis in terms of feasibility, benefit and cost. Should this be identified as a viable option, funding will have to be identified from Dundee City Council budgets or the funding settlement from the Scottish Government for the period 2016-2021 or wholly/in part by the property owner.		Dundee City Council/Property Owner
Flood warning schemes	70271800 70281800	Flood warning actions enable people and organisations to prepare for an event. They enable the risk of the event to	This is a potential action identified through SEPA's strategic option appraisal. Further work will be required to identify feasibility of this action. Should this be identified as a viable option, funding will have to be		SEPA



Action	Action ID	Description	Status and Timing	Funding	Responsibility
		be reduced by moving people / possessions out of the floodplain and by placing temporary barriers to reduce flooding impacts.	identified from Dundee City Council budgets or the funding settlement from the Scottish Government for the period 2016-2021.		
Site protection plans	70272100	Site protection plans are developed to identify whether normal operation of a facility can be maintained during an event. This may be due to existing protection or resilience of the facility or the network.	This is a potential action identified through SEPA's strategic option appraisal. It is the responsibility of any private landowner or business in a flood risk area to take measures to protect themselves and as such they should develop their own plans with support from Dundee City Council flood staff.		Individual land owners and business owners