

# Southend-on-Sea Borough Council

Agenda  
Item No.

Report of Corporate Director for Place  
To  
**Cabinet**  
On  
**17 March 2014**

Report prepared by: Richard Atkins  
Coastal Defences Engineer

---

**Flood Incident Reports – 11<sup>th</sup> October 2013 and 20<sup>th</sup> July 2014**  
**Executive Councillor: Councillor Martin Terry**  
**A Part 1 Public Agenda item**

---

## 1. Purpose of Report

To advise Members of the completion of the formal reports into the flooding of 11<sup>th</sup> October 2013 and 20<sup>th</sup> July 2014. The reports are presented to Members in advance of their being considered by Cabinet at its meeting on 17<sup>th</sup> March 2015 and prior to their publication on the Council website.

## 2. Recommendations

- 2.1 That Members note the reports and approve their publication.
- 2.2 That Members approve the combined Action Plan as recommended in the reports
- 2.3 That Members note the actions taken and work carried out to date to address or investigate identified issues in the highway drainage and sewerage infrastructure.

## 3. Background

- 3.1 The Cabinet meeting of 11<sup>th</sup> November 2014 received and approved an item relating to the production of a “Flood Incident Report” (FIR) consequent to the severe flooding in the town on 24<sup>th</sup> August 2013. That flooding was the first of a series of events caused by exceptional rainfall during 2013 and 2014. This report relates to the next two such events which occurred on the 11<sup>th</sup> October 2013 and 20<sup>th</sup> July 2014.
- 3.2 The event of 11<sup>th</sup> October 2013 consisted of an extended period of heavy rain which began in the early hours of the 11<sup>th</sup> and extended into the 12<sup>th</sup> and 13<sup>th</sup> October. It included 4 peaks of intense rain of which 3 coincided with high tides. This was possibly influential in events in Chalkwell and Shoebury Common Road but the report finds that the most likely causes of flooding related to maintenance, either of the sewerage system (i.e. the adopted sewers), or the surface water drainage system (road gullies and their connections to the sewers). During this

event, one report of flooding inside a residence was reported, in Chalkwell Esplanade. There were 4 reports of road flooding, 5 of flooding from manholes and gullies and 14 of flooding from unknown sources were received. Reported incidents were located at Chalkwell Esplanade and Chalkwell Avenue, Clifton Drive and Western Esplanade, Victoria Avenue, Harp House roundabout, Rodbridge Drive, Thorpe Hall Avenue, Wakering Road, Cotswold Road, Marine Close, Cuckoo Corner, Prince Avenue, Woodgrange Drive, Campfield/Ness Roads and Ness/Shoebury Common Roads. Detailed commentary on each location can be found in the report.

- 3.3 On 20<sup>th</sup> July 2014, a single storm with a very intense but short-lived peak was experienced. The rain coincided with low tide, so that no tide-locking was involved. The principle reason on this occasion for commissioning the FIR, was that the Hospital A&E department experienced flooding and was temporarily closed. Internal property flooding was reported in Glenwood Avenue (1 property) and Prince Avenue (1 property) and The Ridgeway (1 commercial property). In addition 3 reports of road flooding, 9 of flooding from manholes, 1 of garden flooding and 14 of flooding from unknown sources. Reported incidents were located at Southend General Hospital, Glenwood Avenue, Thornton Park Drive and Park View Drive, Highlands Boulevard, Prince Avenue, Rochford Road, Cavendish Gardens, Chalkwell, manor Road, Queensway and Lifstan Way. Detailed commentary on each location can be found in the report.
- 3.2 As with the August 2013 FIR, the documents have been prepared by URS, the consultant appointed by the Council to provide support with its duties under the Floods and Water Management Act 2010.
- 3.3 The full reports are provided as Appendices A and B.
- 3.4 The Flood Incident Reports and information contained within them are being used to influence Anglian Water's infrastructure requirements in relation to new developments on the seafront.

#### **4. Action Plan**

- 4.1 The reports recommend a series of actions by the respective Risk Management Authorities, some singly and some in partnership. Those requiring action by the Council are listed in the following table. Members should note that a number of these have been proactively implemented or commenced since the August flooding event, as set out in Appendix C.

FIR	Action	Others involved	Area
11 <sup>th</sup> October 2013	1. Communication with residents, property owners and businesses to increase understanding of flood risk and measures which individuals could take to protect themselves and their properties	EA, AWS	Borough wide
	2. Ensure that all flooding incidents are reported to the relevant Risk Management Authorities (RMAs) to ensure complete datasets to inform flood risk management and future funding applications (to EA)	EA, AWS, residents and businesses	Borough wide
	3. Prioritise more frequent gully inspections and maintenance		Chalkwell Esplanade, Clifton Drive, Rodbridge Drive
	4. Investigate:- a) Implementation of SuDS to manage surface water at source b) Controlled storage at Chalkwell to attenuate surface water run-off prior to discharge (e.g. permeable paving) c) Storage for flood water alongside Prittle Brook in Priory Park d) Flood storage at Harp House roundabout		Borough wide Chalkwell Esplanade Victoria Avenue/Priory Park Harp House
	5. Plan for the implementation of road closures and diversions for areas prone to flooding where property risk is increased as a result of bow-waves created by vehicles.		Victoria Avenue
	6. Investigate the feasibility of installing flap valves on surface water discharges into watercourses. Determine the impact of high flows in receiving watercourses on flooding at surface levels	EA, AWS	Prittle Brook
	7. Ensure appropriate maintenance of ordinary watercourses to provide the maximum storage potential.	Riparian owners	Campfield Road Ness Road
	8. Investigate the potential for linking the southern Ness Road surface water sewers into the drainage ditches in Gunners Park.	AW	Ness Road
	9. Register single incident areas to inform the need for future FIRs	EA AWS	Cotswold Close Marine Close Cuckoo Corner Prince Avenue Woodgrange Drive
20 <sup>th</sup> July 2014	Several of the above measures feature as recommendations for this FIR. Further measures are set out below		
	Ensure that systems are set up to efficiently record details of flooding. This is needed to gather as much information as possible about each incident at the time of flooding. This will be essential in identifying the correct flooding mechanisms	EA, AWS	Borough wide
	Investigate capacity: as many of the incidents are associated with flooding from the drainage system, actions should be taken to survey and identify potential capacity issues.	AWS	To be prioritised
	Investigate the potential of using the central verge of Highlands Boulevard as a conveyance route for surface water	Residents	Highlands Boulevard
	Investigate the potential to increase the storage capacity at Southchurch Park to alleviate risk to Lifstan Way	Residents	Lifstan Way
	Property level protection: Residents should be provided with information and encouraged to implement property level protection where necessary.	Residents and businesses	Borough wide

## 6. Corporate Implications

### 6.1 *Contribution to Council's Vision & Corporate Priorities.*

<b>Safe</b>	Flooding can create substantial hazards for the public in their homes and in the street, from flowing and potentially deep water, in addition to risks to health considered below. This leads to the inevitable extensive deployment of emergency services personnel and equipment and of resources from the local authorities.
<b>Clean</b>	The immediate aftermath of surface water flooding is a residue of debris, and detritus that needs to be cleared away after the flood.
<b>Healthy</b>	Flooding creates risks to the health of affected residents arising from direct contact of contaminated water with the person and with the fabric of their properties, and potential for injury due to falling, or impact of floating debris.
<b>Prosperous</b>	Flooding on a regular basis may impact on the operation of businesses and its attractiveness to visitors.
<b>Excellent</b>	The Council has legal obligations under the Act to lead on flood risk management, through local partnership with other designated Risk Management Authorities. Such partnership also offers the opportunity to go beyond the immediate scope of any legal obligation and provide enhanced service standards for residents.

### 6.2 *Financial Implications*

The funding implications which are clear at present are limited to staff time in liaising with EA and AWS, and other existing revenue demands. In the future, applications for funding bids for capital projects may come forward. Members should note that funding for this area of work qualifies for EA grant-in-aid support on the same basis as coastal defence works.

### 6.3 *Legal Implications*

The production and publication of these reports is a statutory duty under the Floods and Water Management Act 2010.

### 6.4 *People Implications*

It is anticipated that the on-going partnership working can be provided with existing staff resources.

## 6.5 *Property Implications*

A number of Council owned properties are located in flood vulnerable areas in addition to the private residences and commercial premises. Many steps taken to mitigate the impacts of future flooding will therefore have beneficial effects for the Council as well as many private residents having property in the flood risk areas.

## 6.6 *Consultation*

As the report recommends activities and possible expenditure by the EA and AWS as well as the Council, they have been consulted on its content.

## 6.7 *Equalities and Diversity Implications*

Flooding can impact upon the elderly, and people with health or mobility issues. The reduction of risk therefore provides enhanced benefit to these groups.

The issue of flood risk and people's response to it needs to be communicated to all residents and will require that consideration be given to providing translations for people whose first language is not English.

## 6.8 *Risk Assessment*

The risk of flooding within Southend, based on experience before and since August 2013, appears to have risen from very low to substantially higher than is indicated by official government statistics. Four events causing extensive flooding have been experienced within a year, two of which are classed as "Extreme events". This is of great concern, and it is suggested that part of the partnership working should be serious consideration, led by EA, of the validity into the future of the accepted rainfall probability statistics.

## 6.9 *Community Safety Implications*

Community safety, from consideration of the safety of life and limb to the on-going health risks posed by flood water, is the leading issue of concern in connection with flooding. While this report discharges a duty on the Council in legal terms, sight should not be lost of the deeper human issues surrounding the traumatic effects of flooding on communities, and it is intended that the working relationships being forged with partner organisations will lead to increased safety of people and resilience of property to the risks posed.

## 6.10 *Environmental Impact*

The negative impacts of flooding on the human environment have been commented on above. In addition, inundation of wildlife habitats by polluted water could have major impacts on species using those habitats, and any measures to improve their security will be of benefit to biodiversity in general.

## **7. Background Papers**

**None**

## **8. Appendices**

Appendix A: Southend-on-Sea 11<sup>th</sup> October 2013 Flood Investigation Report  
URS Ltd

Appendix B: Southend-on-Sea Flooding on the 20<sup>th</sup> July 2014 - Flood  
Investigation Report URS Ltd

Appendix C: Summary of measures taken by the Council and its partners in  
accordance with Action Plans presented in FIRs to date.