

# Coastal Defences – Local Flood Risk and Surface Water Strategy

## Consultation responses

The consultation on the documents was launched in September 2015 and we had a total of 20 responses, 14 of those accessed online and answered the specific questions and 6 were sent via email making comment and reference to actual paragraphs in the documents.

### Online responses

The questions were not all answered by all respondents and the breakdown is as follows below.

#### Question 1: Have you been able to find, read and consider both documents?

14 respondents

8 (57%) people indicated they had read them both, 3 (21%) stated they had read the Surface Water Management Plan and 3 (21%) had not read any of them.

#### Question 2: Sources of surface water flooding

10 respondents

7 (70%) people said Yes, 1 (10%) No and 2 (20%) Don't know

#### Question 3: What other sources do you think should be included?

1 respondent

Previous reviews by Scott Wilson / Black & Veatch / Richard Atkins which covered similar issues, which were ignored. How do we know it will be supported this time? 2 -History / recorded facts from the past, gives coherence to the plan. This is lacking in this report. This should be the main "driver" 3 - Information / flood maps / ordinance data is flawed, where even local schools are not even shown. Should not the public be at the top of the list? 4 - Actions considered essential in this plan have not been followed, even in recent months. 5 - Recorded facts & flood risks, should be made public & available to educate residents 6 - Shoebury flood records are inadequate & misleading 7 - SBC plan is clear, but who is responsible & who will be accountable if it goes wrong? 8 - All planning applications should be linked with flooding risk, which although called for is not being considered at present. SBC should pay for Flood Risk assessment, paid for by developer. 9 - How can we avoid authorities passing the buck? A law must be introduced to protect residents at risk. 10 - Improvements, change, facts & accountability will reduce flood risk, not just words.

#### Question 4: Do you consider that all significant flood risk areas in the borough have been identified in the documents?

8 respondents

6 said Yes (75%), 1 indicated it was No (10%) and 1 didn't know (10%)

#### Question 5: What other significant flood risk areas in the borough do you think should be included in the documents?

*This was a free text question which was not responded to.*

#### Question 6: Do you consider that all appropriate flood mitigation measures have been identified in these documents?

7 respondents

This was a single response 5 highlighted Yes (71%), 2 indicated No (28%)

**Question 7: What other flood mitigation measures do you think should be identified?**

*Free text question - One person responded to this*

Whilst the reports are exceedingly well undertaken, I would suggest a gap analysis is undertaken with the URS reports of 2013/14, as some areas have been left out. For example URS flooding report July 2014, pages 24/25, section 3.3.4 recommends a SUDs tank to mitigate against surface water flooding. Whilst Belfairs may be considered as low risk assessment, the area of Belfairs Garden Estate has suffered and reported flooding. There may be other gaps between the present three URS reports and the pending 4th report that should undergo the gap analysis, with a view to explaining the reasons behind the gaps in view of expenses of reports and URS's global recognition as experts.

**Question 8: Do you consider that any of the proposed flood mitigation measures are inappropriate?**

*7 respondents*

2 said Yes (28%), 3 indicated No (42%) and 2 didn't know (28%)

**Question 9: Which flood mitigation measures do you think are inappropriate and why?**

*1 response*

None

**Question 10: Are there any additional flood mitigation measures which you would like to propose?**

*7 responses*

2 indicated Yes (28%), 4 stated No (57%) and 1 Didn't know

**Question 11: Please tell us about the additional flood mitigation measures you would like to propose. Please give as much explanation as possible.**

*Free text question with 6 responses*

Don't allow the building of any homes or business' in flood zones.

Flood risk should be taken into account at all stages of the planning process and given primary consideration in any new application to avoid inappropriate and unsustainable development. The Planning system should encourage sustainable flood risk management reconsidering past and current planning applications to avoid and reduce flood risk. It also offers opportunities to reduce flood risk to existing communities and developments through better management of surface water.

In known flooding areas bring surface water drains and grills up to modern special and capacity standards.

3 people stated there are none

**Question 12: Do you have any other comments about either of the documents?**

*Free text question with 5 responses*

A great start that now needs a funded and agreed action and implementation plan to make it happen.

Don't allow the building of any homes or business' in flood zones. Prioritize high to low risk strategies, and commence work accordingly as funds become available.

The documents comprehensively cover the wider flood risk issues, although the detail with respect to groundwater levels in the Barge Pier area do not confirm the reflect the level experienced over recent years. The importance of the area including Gunners Park should not be underestimated as a natural resource for mitigating flood risk as part of Management Plans, Catchment Flood Management Plans, Shoreline Management Plans, Surface Water Management Plans, Flood Risk Management Strategies, appraisal, design and implementation of flood defences.

No

## General Responses

### Environment Agency

Overall the document is broadly in line with the six guiding principles of the National Flood & Coastal Erosion Risk Management Strategy. The following comments & amendments will help to strengthen this document.

### Specific technical comments

The LFRMS makes reference to the Anglian River Basin Management Plan. There is potential in Southend that some Flood Risk Management activities could also impact (positively or negatively) on the Thames River Basin Management Plan too (i.e. any coastal impacts and coastal defences, e.g. beneficial impacts of SUDS on water quality, including bathing water & shellfish water quality, and the mitigation measures identified for the Thames estuary). It may be worth making reference to this RBMP as well.

Glossary	“Standard of Protection” – perhaps it would be easier for the public to understand the concept of percentage chance of occurrence, using Annual Excedance Probabilities? For example: a flood event with a 1% AEP has a 1% chance of occurring in any one year. If you have a bag of 100 balls and 1 is red you have a 1% chance of pulling out the red ball. You put the red ball back in the bag you still have the same chance of pulling the red ball out again on your next go.
2.1 Overview	15 ‘Figure 2.1: Flood risk management in policy and legislation’ should read “Thames Estuary 2100”
2.3	Southend- on-Sea Borough Council Local Flood Risk Documents This section is missing reference to the Thames Estuary 2100 plan. This document sets out our recommendations for flood risk management for London and the Thames estuary through to the end of the century and beyond. The following policy units fall within the study area for this LFRMS: <ul style="list-style-type: none"><li>• Action Zone 6 - Hadleigh Marshes: P3, to continue with existing or alternative actions to manage flood risk. We will continue to maintain flood defences at their current level, accepting that the likelihood and/or consequences of a flood will increase because of climate change.</li><li>• Action Zone 8 - Leigh Old Town &amp; Southend-on-Sea: P4, to take further action to keep up with climate and land use change so that flood risk does not increase.</li></ul>

The TE2100 plan makes 8 recommendations to deliver TE2100 aspirations over the next 100 years in the Hadleigh Marshes policy unit and 9 recommended actions Leigh Old Town & Southend-on-Sea policy unit.

As the TE2100 plan complements the overlap with the Essex & South Suffolk

SMP it is recommended that a paragraph covering TE2100 is inserted after '2.3.5 Essex and South Suffolk Shoreline Management Plan (SMP)'.

It is important to note that the TE2100 Plan (pg. 216) identifies that, in relation to the Leigh Old Town & Southend-on-Sea policy unit :

"Southend on Sea council is also the Operating Authority for the coastal and tidal defences so will take responsibility for [preparing the PARs (Project Appraisal Reports) which may flow from the TE2100 Plan in this Action Zone.... The Environment Agency will be involved in works at Hadleigh Marshes and Leigh High Street, but most of the other schemes flowing from the TE2100 Plan will be promoted and delivered by Southend"

2.3.4 Southend- on-Sea Borough Council Surface Water Management Plan (SWMP) - Consider an entry for "Critical Drainage Catchments (CDCs)" in the Glossary on pg.8

3.4.1 As the Lead Local Flood Authority - Reference to go in here to threshold for S19 flood investigations to give the reader further clarity – and/or reference to section 6.2.2 (pg.35) Suggest amendment to: "...Southend-on-Sea Borough Council hold quarterly Flood Partnership Meetings with the RMAs..."

3.4.4 As a Local Planning Authority - More explicit reference to role as statutory consultee on surface water flood risk / drainage proposals sites over 1 ha in planning. Assess SuDS principles.

3.4.6 As Regulator of Ordinary Watercourses - Further guidance on this process would be beneficial to this document and also made separately available via Southend BC webpages – e.g. forms to fill in, determination process, enforcement etc.

3.5 The Environment Agency Suggest amendment to: "...as a statutory consultee on tidal & fluvial flood risk throughout the planning process"

3.7.1 Riparian Owners - As per comments relating to section 3.4.6 above . Required amendment:

*"or to the Environment Agency for works within 9m of a designated main river watercourse" (Requirement of our local Land Drainage & Sea Defence byelaws).*

4.3.2 Future Surface Water Flood Risk - This section does not consider any impacts of climate change, despite the section's title. Either the title is to be revised to reflect the section's purpose of providing a count of properties at current surface water flood risk based upon 2013 data or needs to be revised accordingly. Some mention of key areas at risk of surface water flood risk would be beneficial, such as Section 4.4. below, to spark the reader's interest to turn to Figure A10.

4.6.1 Flooding from Main Rivers - Required amendment:  
*"Extensive areas in Southend-on-Sea within Flood Zones 2 and 3 are as follows:*

- ~~Shoeburyness around Gunners Park;~~
- ~~Southchurch Park and surrounding areas as far as Bournes Green; and,~~
- *Eastwood and Eastwood Brook."*

*These areas of Flood Zones 2&3 struck through (above) are from tidal flood risk sources, not fluvial flood risk sources.*

- 4.6.2 Flooding from Tidal Sources and the Sea - See comments for '2.3 Southend-on-Sea Borough Council Local Flood Risk Documents' (above).  
Required amendment: *"TE2100 covers the Southend frontage from the eastern end of Hadleigh Marsh to the west and extends as far east as the Ness at Shoeburyness. The plan recommends the required flood risk management measures as well as when and where these will be needed, based on climate changes and rising sea level. The plan, which is adaptive, currently sets out recommended future flood defence levels for the tidal frontages in Southend-on-Sea (Action Zones 6 & 8) and will be an important factor in planning sustainable development in areas at risk of flooding in future years."*
- 4.7 Flood risk from combined sources "Fluvial and tidal flooding.... The Prittle Brook Flood Relief Tunnel, Willingale Brook, C-X Ditch and Barge Pier Ditch all discharge to the Thames Estuary."
- 4.8 Willingale Brook is a public sewer when it discharges to tide via the Anglian Water pumping station on Eastern Esplanade. It is a public sewer for 0.2km upstream of the pumping station.
- 4.8 Impact of Climate Change - Need to elaborate upon how the climate change predictions are to be used, referenced, in relation to the Southend BC area such as establishing a consistent % increase for drainage / flood mitigation works – information for developers to consider in their proposals etc. Reference to Climate change allowances for planners (Sep 2013)  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/296964/LIT\\_8496\\_5306da.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296964/LIT_8496_5306da.pdf) Note that this guidance is likely to be updated in the next two months, more in line with the change factors within Adapting to Climate Change: Advice for Flood and Coastal Erosion Risk Management Authorities  
<http://webarchive.nationalarchives.gov.uk/20131108051347/http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/geho0711btzu-e-e.pdf>
- 6.1 Overview - How can the public view/access the "key activities undertaken to date"? There are no readily available web pages devoted to the roles and responsibilities upon Southend BC as an LLFA (described in section 3.4.1).
- 6.2.2 Investigate Flood Incidents - "...summary of the key findings will be published on the council website..." As per comments above for section 6.1 Suggest addition of a requirement to investigate if there is ambiguity over the source of flooding. Also update Appendix D to follow.
- 6.2.5 Regulation of Ordinary Watercourses - Text is required around the ordinary watercourse consent process – forms/guidance/timescales/web pages etc. to ensure the reader understands the regulatory role that Southend BC has to regulate local flood risks. "...annual asset inspection program" - suggest a risk-based inspection frequency is considered.
- 6.3 Sections - Update text following the Government's revised Development Management Procedure Order on Wednesday 15 April whereby assessment of surface water still to be enacted: SuDS Approving Body drainage proposals for sites over 1 ha responsibility transferred to Lead Local Flood Authorities. Consider update to Appendix B.3 Risk Management Authority Roles and Responsibilities

Table 6.1: Southend-on-Sea Council Measures for Local Flood Risk Management- Suggest an extra measure 1d against Measure “Improve understanding of flood risk including likely effects of climate change”: A risk-based modelling programme is developed to understand current and future flood risk from ordinary watercourses.

This will supplement all other measures and objectives listed, notably capital investment, spatial planning, public awareness & emergency response.

Based upon section 4.5 pg. 28 “No modelling of the flood risk from ordinary watercourses has been undertaken to date across Southend-on-Sea. Therefore future flood risk is based on the potential risk that might arise based on knowledge of known flooding hotspots and potential mechanisms for flooding.”

Objective “Encourage future development to provide a betterment to flood risk”

More explicit reference to SUDS and potential WFD enhancements.

Measure 4a. “Openly share information with respect to flood risk across Southend-on-Sea with all Risk Management Authorities and the public”

As per comments above for section 6.1 Objective “Continue to manage local flood risk and coastal flooding & erosion.”

6.4.3 Stronger links to the TE2100 recommendations for Action Zones 6&8 Planning for Climate Change - See comments for 4.8 Impact of Climate Change

6.5 Communication and Engagement - What about consideration of engagement with the public and other professional partners that help manage local flood risks? More explicit reference perhaps to Appendix B2 to tell the reader these are listed there.

6.6.4.1 Flood and Coastal Erosion Risk Management Grant in Aid (FCRM GiA) Required amendment:

*“The programme of capital works will be prioritised based on the adjusted Partnership Funding score, which influenced by a series of Outcome Measures that the project will deliver:*

- *Economic benefits (OM1)*
- *Households better protected against flood risk (OM2a-c)*
- *Households better protected against coastal erosion (OM3a-c)*
- *Water dependent habitat (OM4a)*
- *Intertidal habitat (OM4b)*
- *Protected rivers (OM4 c)”*

6.6.4.2 Required amendment: Local Levy

*“The Local Levy can be used to support, with the approval of the RFCC, flood risk management projects that have not achieved a great enough adjusted partnership funding score to attract full FCRM GiA funding and are deemed worthwhile causes by the RFCC local choices.”*

6.6.4.3 Funding through the Community Infrastructure Levy- Suggest updating the text: *“Southend-on-Sea Borough Council is presently establishing CIL within the Borough by June 2015. This is expected to raise approximately £100,000 per annum by 2017.”*

8.4 Review - “...to inform Section 18 reporting...” – section 18 of which document? Aids the reader’s understanding.

A1	Critical Drainage Area Overview - Suggest title amendment to <i>“Critical Drainage Catchments” (CDCs)</i>
A9	Main Rivers and Ordinary Watercourses - Main river layer to be updated as Glenwood Avenue culvert (Eastwood Brook) is confirmed as public sewer.
B.3	Risk Management Authority Roles and Responsibilities - See comments for 6.3 Sections still to be enacted: SuDS Approving Body
Table B-2	Roles and responsibilities of the Environment Agency - Consider the additional of the roles and responsibilities of the Environment Agency under the Water Resources Act 1991 (inc. Permissive powers, consenting and flood warning).
Table B-4	RFCC Composition - Table B-4 RFCC Composition – amendment required: <i>Number of members of the Southern Anglian Eastern RFCC to be appointed by, or on behalf of, each Constituent Authority or Group of Constituent Authorities</i>
Appendix C	Action Plan - Inclusion of proposed action to develop a risk-based modelling programme for ordinary watercourse flood risk now and in the future with climate change (see comments above R.E. Table 6.1: Southend-on-Sea Council Measures for Local Flood Risk Management).

Overall requirement to develop Project Proposal forms to take identified measures seeking FCRMGiA for consideration within the 6-year capital investment programme coordinated/maintained by the Environment Agency. (E.g. Action 1 C iv “Implement actions resulting from completed Flood

Investigation Reports” has funding status of “to be confirmed”. These may be eligible to apply for FCRM GiA )

*“4.a.ii Update the webpage on the Southend-on-Sea website to detail information on flooding and provide guidance to residents, businesses and developers.”*

This is currently listed as “moderate” priority. It is strongly recommended that this is amended to **“high”** to give clear guidance to the public as the Southend’s role and responsibilities as a LLFA (sections 3.4 and 6.2 of the LFRMS) as we have emergency contacts & procedures which is currently not evident on their web pages.

Appendix D	Recommendations from the TE2100 plan Action Zones 6 & 8 to be incorporated or links strengthened. “e.g. programme of floodplain management including... emergency planning, and localised flood protection and resilience to vulnerable key sites...” (TE2100) Southend- on-Sea Flood Incident Recording and Investigating - How has an internal flooding frequency of “four” been determined? Should the text on page 78 read “more than four separate reports of the interior of a single residential property flooding” – i.e. different events or from four members of the public? Need to consider a check regarding ‘ambiguity’ over the flooding source.
------------	--

### **Burges Estates Residents Association**

The consultation document provides a comprehensive assessment of the current situation regarding the legislation, regulations and directives together with the roles and responsibilities of the various bodies involved. This is invaluable for the public and organisations like ours to have a better understanding of the situation and to be able to target our concerns more effectively.

So far as the Action Plan is concerned there is a feeling that it lacks definition and deals mainly with policy initiatives. There is a dearth of specific proposals for flood protection or any sign that the sewer system will be improved in the foreseeable future. Many of the items in the Action Plan are as yet unfunded. One can only conclude that the Action Plan can be fleshed out when the consultation process has finished.

There are a couple of specific points to make on the document. Firstly para. 2.3.2. makes reference to differences between DEFRA data and the PFRA. It does not appear that those differences were resolved. And secondly in para. 4.6.3. there is a comment about likely flooding consequences. If as suggested older sewers were built to a lower probability than modern ones, then flooding can be expected at less than 3.3% not greater than. Incidentally the majority of sewers were built in 1880s not 1980s.

### **Shoeburyness Residents Association**

1. The reports provided a clear analysis of the existing data of the potential freshwater flooding problems faced by the borough. The Shoeburyness data referred to in the report was incomplete and understated the flooding problems that had been faced by residents and businesses. Referring to the floods of 24 August 2013, the report understated Shoeburyness flooding experiences, and in the view of members, understated the flooding problems in the adjacent wards and the problems experienced in the centre and west of the borough. We noted that the consultants' reports indicated a need for better data collection and analysis which they suggested should be improved significantly.
2. At the time of the flooding events caused by heavy rain, the committee considered that there had been inadequate help from the council to warn residents and businesses about what might happen. There was inadequate information about what residents and others should do if they were caught in serious floods. The committee noted that there had been very poor vehicle driving during the most recent floods on 24 August 2015, which is clearly outside the remit of the report. When vehicles were driven at speeds that did not match the conditions bow waves of water were created which added to the effects of flooding. The committee noted that this poor driving had happened in other flooding events which were in the scope of the report. The committee was disappointed that the report did not contain any mention of this issue, and perhaps more important, what the council needed to do to calm bad driving in times of exceptional rainfall.
3. The reports clarified the council's overarching responsibility for flooding issues. "... Lead Local Flood Authorities (Southend is one) new responsibilities leading and co-ordinating the management of local flood risk, namely the flood risk arising from surface water, ground water and smaller water courses and ditches ..." "...This includes a statutory responsibility to develop, maintain, apply and monitor a strategy for the management of local flood risk." Members were surprised that the report dwelt very strongly on the issue of council responsibility as all the requirements for this responsibility were known to the council and a reminder seemed inappropriate. Members had expected the council to ensure effective action was taken by partner organisations. To give one example in Shoeburyness, the one way valves, which were expected to prevent sea water flowing over Shoebury Common Road, had failed repeatedly. These incidents had been reported, usually verbally to the council, and the council had responded this issue was the responsibility of a partner organisation and not the council's problem. Members were pleased to see the report's emphasis given to the overarching responsibilities of our council for all aspects of flooding and the duties of the council officers and members to ensure that the various "authorities" did their jobs under the leadership of the council. A list of council and the lead officer's detailed responsibilities would have been helpful. We would like to see the detailed list at an early opportunity.
4. The reports majored on a long list of activities. It was difficult to gain an overarching view of the way forward from this list. We consider that it is essential that a clearly

understandable action plan summary is required in the report together with a list of individual responsibilities and a list of what the council considers to be the priorities to manage flood risk in the immediate future.

5. Many suggestions were made in the report about actions that might be taken, including residents and presumably businesses responsibilities. We were concerned that the roof drainage option is unlikely to be satisfactory during severe rainfall events as one water butt will be totally inadequate to contain the rain of all the water falling on a properties' roof.
6. We had hoped that the report should inform the borough: What is at risk, the current seriousness of the risk, and how should the council minimise the risk by the identification of low cost quick hits and "doing something about them now".
7. The reports did not contain an easily understandable overall view of the current "pluvial" flood mitigation arrangements for the borough, pointing out the current problems, and suggesting a way forward. It would have been helpful for the consultants to provide a list of possible scenarios of the options open to the council with an outline of pros and cons of each option.
8. Council failures to mitigate flooding were not listed in the report. We suggest that the report needed to contain identification of current failures and how these can be overcome quickly and affordably to help planning for future emergencies as is practiced in the airline business.
9. Flooding mitigation failures of local partners needed to have been identified in the report together with recommendations how these failures be can be fixed by a specified time with proof provided to the council that the fix has been completed satisfactorily.
10. The report failed to Identify the council resource needed to take immediate corrective action where required.
11. We suggest that the report needed to provide details of recommendations how coastal flooding risks should be included in long term flood prevention/mitigation.

### **Who should be involved in creating a flood risk mitigation strategy?**

Appendix B of the reports covers the stakeholder engagement plan. B2 lists stakeholders. The public and some local business are usually worst affected by flooding. The NHS recognised the importance of working with patients to improve our health services. The Southend public (and general taxation) pay for the council and other statutory services. Our view is that the public need to be involved in identifying and solving problems like flooding to ensure that action taken is appropriate. The position of the public in the list of "stakeholders" page B-1 is not acceptable. The public have the most to lose when flooding occurs. It took time for the NHS to be converted to involving patients and public. The NHS benefited from public involvement. Perhaps the council and its consultants could learn from the NHS. We suggest the following must be involved in future flooding strategy reviews:

- Local councillors
- Council officers
- Residents' associations
- Local businesses

### **Shoeburyness issues.**

The consultant's report was incomplete about Shoebury problems. It mentioned drainage from the fields to the north of Shoebury, but we found little mention of the regular flooding of the garrison site, Campfield Road, Ness Road and the Shoebury Common road, (usually caused by salt water coming up the road drains). River Shoe issues were minimised. The committee note the RC church hall had to replace its floor recently as did the Campfield Road medical centre because of River Shoe issues. Table 7.1 of the report makes no mention of River Shoe issues. Details of flooding problems in other wards may be incomplete too.

### **Suggested quick hits to mitigate and avoid future flooding:**

- Follow the recommendations made by the consultants in section 10 and 12 of their report where these can be achieved at an affordable cost
- Formally record details of all flooding incidents and their root cause if possible, of the flooding, and the corrective action recommended. Use agreed volunteers (e.g. residents' associations) to report to the council flooding details within a day of the occurrence
- Check the condition of road drainage (see section 12.4 of the consultants' report) regularly throughout the borough and take immediate action to fix where necessary. We suggest that road drains must be cleaned regularly.
- Enforce the embargo on new concrete driveways. The council needs to recommend acceptable hard standing for driveways which will permit water to drain to the underlying material.
- Check and fix where necessary the effectiveness of "flap" valves which prevent sea water flooding coastal areas through drains
- Check the practicality of rain water harvesting from roofs of buildings
- Encourage residents and some businesses to have their own rain gauges and report the results to the council in a standardised format as well as the providing a network of rain gauges
- Encourage businesses and residents in potentially flood risk area to have their own flood mitigation arrangements.

The association hopes that these remarks and suggestions prove to be of help the council to reduce the problems associated with flooding and will be pleased to assist with all local flood mitigation activities.

### **Mr Peter Lovett**

I would ask you to take into consideration my serious concerns about the "SBC Flood Strategy Plan"

1. Having read in depth, previous studies & plans produced in 2010 / 2011 by Scott Wilson / Black & Veatch, I am seriously concerned that actions & risks previously agreed, have been ignored in the past. What protections have been put in place to ensure they are followed, this time? Southend Council (SBC) have been the "Lead Flood authority" for Shoeburyness for years, so how do we know they are now going to accept responsibility for the risk now? We were previously told it was the Environment Agency that was responsible. This plan has got to be transparent.
2. Although only 4 / 5 years ago, there is a huge difference in the Shoeburyness facts given & the properties at risk. Has these figures been checked to ensure the base lines are factual? It seems that today, there is a greater risk of surface water flooding & a greater increase due to global warming effects, whereas the risk was always against coastal flooding in 2010 / 2011? Gunners Park Development is a typical example, where only coastal flooding was being considered in the planning application, whereby this land had suffered surface water flooding on at least 8 / 10 occasions in the past, details dating from 1968
3. Like science in general, recorded historic facts produced as time progresses, strengthens the risk factors in place at any given time and is the main "driver" of any risk analysis. This report relates to facts recorded over only a couple of years. Do you not think that attempts should be made to collect records relating to flooding, from the last 20 years plus. Most of this information is readily available, which can only help to

understand the changes that have occurred & more importantly, how they can be repaired or altered.

4. Acts were already in place to link all Planning Applications with Flood Risk, this was totally ignored with previous application in the past. What safeguards are in place to ensure residents are protected this time. It is particularly important, due to new changes in flood risk insurance, being introduced under the FloodRe system, going through Parliament at this time. Affordable insurance will not be available to all houses built on flood plains after 1st January 2011, so this could have a serious effect on these homes.
5. Under 3.1, I feel that the position of the tide will also have a huge effect on any pluvial or surface water flooding. If the public is to assist with possible flood risk, I feel that all flooding incidents recorded & discussed by SBC, should be made public. This site could also be used to add photographs & facts, so that SBC have a better understanding of even minor incidents that occurs & the risk this presents.
6. We know from changes in the highway layout along Marine Parade / Jubilee Beach, which caused much more serious flooding to the amusement arcades & businesses. Should not all "Highway" alterations & additions have a "Flood Risk" assessment attached to the changes. In contrast, it has been proved in the past, that a simple change in layout can reduce the risk of flooding, by re-routing the "flow" of water away from the risk.
7. Although I accept that SBC has been recording flood events since 2005, it is obvious from the maps & general recorded information shown by the consultants, these events are incomplete and giving inaccurate facts. Perhaps when Campfield Road, Ness Road, Asda, Shoebury Common Road & Gunners Park etc., have flooded in the past, residents have no reason to report the event, when home, life or limb is not at risk. Another example where public access to report such incidents, is important. Not recording these facts means these future risks are being ignored.
8. History also confirms where flooding has occurred in the past, "passing the buck" is a common tool being used by all concerned. It is like spending thousands of pounds on printing double yellow lines, only to have nobody responsible to ensure the law is upheld. **Accountability** is the important factor here, so that everyone is clear, including the public, who is responsible for what. The River Shoe has clearly demonstrated this fact in the past, with responsibility being shared between Anglian Water, SBC, Highways & the Developer, but as yet nobody has ever accepted responsibility when it floods. Even now, Manhole covers along Ness Road are being pushed up, due to drain pressures, but the Council were going to add yet another 172 homes & 15 office blocks to the infrastructure, without any concerns for the future flooding that may occur. Anglian Water are more interested in their shareholders, than they customers and have no responsibility anyway.
9. The assessment plans in this Management Strategy are flawed with errors & exclusions. In Shoebury the position of schools, sewers & other public places is incorrect, as is the flood maps showing records of previous flooding.
10. Retrofit Water Butts & Rainwater Harvesting will be of little help. When it has been dry & Water Butts / Tanks are empty, the surface water would not cause flood risk anyway. It is only when the ground is already soaked, that flooding will occur. At this time all Butts & tanks are already full and provide little additional storage. Flood warning systems, rain gauges & emergency planning will help us all deal with the

problem. However, changes, improvements & interdisciplinary teamwork will help avoid future risk of flooding.

11. Maintenance is also essential to ensure the items put in place to protect us all, continues to provide the designed outcome. Drain cleaning should be increased in "at risk" areas. Existing non-return valves should be replaced with double non-return valves, so you always have a back-up in the event the lead flap fails. It is easy nowadays, to link all duplicate sewage pump sets, using BMS, with a central control room, so that breakdowns are repaired instantly by Anglian Water. If it is a Power Cut, then these other industries should be brought to account, like you would if it was in other essential services, like hospitals.
12. Our Town Planning Committee should include a "Flood Risk Assessment" on every application received, to ensure these risks are taken into consideration, **before** Planning Permission is given. This is already covered in the Defra SWMP technical guidance. All flood risks assessments for developments & industrial sites, should be instructed by the Council & not by the Developer. We have many examples in Southend from the past, where sensible advice has been ignored only to suffer severe consequences in the future. We have got to learn from these mistakes. 106 agreements are not helping to ensure full planning rules & flood risks apply, where developers can offer £2m plus, in exchange for planning permission.
13. I would like to see "The Public" moved from the bottom, nearer to the top, when listing the Risk Management Authorities (3.2) I would also like to see greater use of the Land Drainage Act 1991, to ensure land owners / developers maintain ordinary water courses at all times. This act can be used against Anglian Water to ensure all our pumping stations are fit for purpose. This company was not accountable when several hundred homes flooded recently on Canvey Island, despite them omitting their pumps filed yet again. This accountability should also apply to Developers who build houses and when they flood say, "it has nothing to do with them", with many house owners left with a house they cannot sell.

### ***Friends of Shoebury Common***

Friends of Shoebury Common (FoSC) very much welcome the opportunity to provide comments on the consultation regarding the DRAFT Local Flood Risk Management Strategy, as outlined in the DRAFT documents entitled SBC Local Flood Risk Management Strategy (LFRMS) and SBC Surface Water Management Plan (SWMP).

#### **A General Summary of Principle points we raise below:**

1. There is a need to be inclusive with local groups at all stages of these & future report refinements.
2. There is an urgent need to recognise the considerable responsibilities that SBC has as lead local Flood authority.
3. There is an urgent need to establish that the flood maps are accurate & not out of date.
4. There is an immediate need to undertake Borough wide, at strategic pressure points, street gully flushing /emptying.  
Additionally there is a need to establish what percentage of the existing drainage system is blocked, partially blocked with silt & debris, brought about by a cut back in maintenance programme.  
This could release presently unavailable capacity back into the system, thus providing temporary relief whilst long term improvement measures are planned/implemented.

5. There is an urgent need to increase pumping station capacity/reliability - possibly by adding parallel pumps to be brought into service at peak load-- thus increasing pumping pressure.

**Whilst our commentary is focussed upon Shoeburyness and local districts, the general principles could equally apply across the Borough**

There must be a wider understanding of ALL of the responsibilities that SBC has as the Lead Local Flood Authority (LLFA) on all matters relating to non - tidal flooding (from surface water, groundwater, and ordinary watercourses). We believe this is key to achieving an improvement to SBC's responses to flooding events.

To achieve that wider understanding FoSC consider it to be absolutely essential that ALL of the LLFA responsibilities are clearly defined at 3.4.1 of the LFRMS document.

One of the LLFA duties, for instance, is the vitally important requirement to ensure the accuracy of the EA Flooding from Surface Water maps which were introduced in December 2013. Only LLFA's can request changes to the EA maps. There is no mention of those facts, together with any revision details, in the DRAFT LFRMS document.

FoSC have serious concerns regarding the accuracy of the EA Surface Water maps, based on information provided by the Environment Agency (EA) , who advised that, prior to going live in December 2013: all LLFA's , including SBC were invited to review the then draft maps over the summer of 2013 ahead of publishing at the end of 2013.

However, the EA advised that, as part of that consultation, **SBC did not challenge, nor request changes, to the classifications shown on the maps for their area.**

Of particular concern, as a singular example, is the classification of Gunners Park in Shoeburyness which shows "Low Risk" on the EA Surface Water Flood Risk maps, i.e. a chance of flooding of between 0.1 % (1 in 1000) and 1% (1 in 100). However, it is of widely held public knowledge and concern that there is a long history of non-tidal flooding of that land and the "Low Risk" classification is consequently incorrect!

3 scanned copies attached of newspaper clippings dated November 2000 and February 2001 confirm flooding's of that area are more frequent than 1 in 100.

Because of the above, (FoSC) believe that the accuracy of the EA Surface Water maps needs to be re-established as a matter of urgency so that properties most at risk can be identified with confidence.

The Executive Summary of the LFRMS includes objectives for the management of local flood risk. (FoSC) believe that an additional objective should be added "To ensure the accuracy of data on which flood risk decisions are taken/ made".

Another (FoSC) concern regarding the LLFA role is whether SBC currently have sufficient staffing levels, and the necessary expertise, to effectively carry out the requirements of the LLFA responsibilities or would that be sub contracted ?? The details of LLFA responsibilities suggested will assist that debate.

In the past, repeated requests have been made to SBC, as the LLFA, to explain why parts of the ditches within Gunners Park, which are owned by Anglian Water and the developer Garrison Developments, have not been cleared.

Following flooding in Campfield Road, near to those ditches, on 25<sup>th</sup> August 2015, clarification was sought on whether they were clear at the time of that recent flooding event - ----No response has been received to date.

It is noted that the LFRMS document states at **3.4.6**, under “As Regulator of Ordinary Watercourses”, that power exists under the Land Drainage Act 1991 for SBC to demand that the abovementioned sections of the Gunners Park ditches be properly maintained. It is not understood therefore why no action has been taken by SBC, the responsible LLFA.

**Additional Comments: Regarding the LFRMS document:**

At **2.2.2** it states “...the Environment Agency and LLFA’s have been required to produce Hazard and Risk maps”: (FoSC) believe that it is the EA who have the sole responsibility to produce the maps – but as explained earlier the LLFA have an important role to play in ensuring the accuracy of the maps produced, by requesting changes to the data to reflect latest evidence.

At **3.2** The list should include Shoeburyness Residents Association, Garrison Residents Association, and Friends of Shoebury Common (FoSC). We believe that these 3 groups should be involved from a much earlier stage in future exercises.

At **4.31** Historic Flooding in Shoeburyness: It is very disappointing and somewhat surprising, that there are only limited instances of flooding documented in the draft document. However, it is noted in the SWMP document at 3.3.4 that “SBC holds records of surface water flood events in the Borough dating back to 2005 including details of areas and properties that have experienced flooding. However, that records only go back to 2005 is extremely disappointing and surprising!

**Appendix B 4.7** The failure of flap valves by example contributes to the regular road flooding at Shoebury Common Road

**B-1 Stakeholder Engagement Plan:** At the very least should include one representative from a “Shoebury Association”.

**6.2.2** Duty to investigate “Significant events” following flood events at Shoeburyness – has an investigation been undertaken of the recent flooding at Shoeburyness?

**Additional Comments: Regarding the SWMP document:**

**7.6 page 30** Historic evidence given is incomplete!—in fact there is considerable evidence of flooding in Campfield Road & Ness Road. -----This area **is a Hot Spot** for surface water flooding –not a potential one, as described!

**Table 7.5 page 30** Why are there no records of sewer flooding in Shoeburyness?

**Table 8.1 page 33** Critical drainage area ---missing data in section **CDA5**: namely School, Health Centre, Electricity substation, Emergency Services (ambulance station)

**Page 38** Borough wide rain gauge,....there is already available commercial weather data that details rainfall levels in particular areas in real time—perhaps a commercial provider could oblige!

**10.6 page 42 Increase pump capacity:** Recent events have illustrated how the capacity & reliability of the respective pumping stations hold the town to ransom at times of greatest need.

There has been a history of issues at all pumping stations; anecdotal evidence suggests that a reduction in regular routine planned maintenance in favour of fix a fault when it happens, may have contributed to system failure(s) at a time of most need.

There is a need to ensure that the equipment is protected from local flooding, has local emergency power source, and has local system latency, that can be brought to bear at time of maximum need eg installation of parallel pumps.

**10.7 CDA Shoeburyness page 44:** Re: identified Flood Storage area within Gunners Park. A larger and eminently more suitable area is available close by. Its close proximity to existing water course, low lying aspect makes it suitable for the Green corridor /infrastructure approach.

The commercial owner of this land should be approached with a view to purchase by Southend Borough Council as a future key component for surface water flood risk management.

**11.1 Action Plan tabulation page 48**—Borough Wide: General proposal: Implement the following:-

**1) A return to the old practice of mechanically sweeping roads on a regular basis--this ultimately prevents build-up of silt in road drain /sumps.**

**2) A return to regular road drain sump flushing & emptying---this ensures the gully works at time of greatest need.**

**Ref: table (19)** Additionally Increase capacity of Shoebury Common/Ness road pumping station.

**Ref: table (24, 25)** investigate flood storage--this could be part of 10.7 CDA already covered

**Policy KP1 Spatial Strategy:** Environment agency flood zone maps etc.

“Indicate risk of flood, all development proposals must be .....accompanied by a detailed flood risk assessment appropriate to the scale and nature of the development and risk.... “

It would be critical that such reports be accurate & be derived from the latest data available.

As a control, an audit should be carried out rather than relying upon a submitted report.

**12.2.2 Planned Growth page55** ---List of recommendations

“Water butts & green roofs”. This is very much Tinkering at the edges

“Reduce public costs by shifting surface water obligation to developer”---- This proposal brings with it a whole raft of dangerous issues eg The reliance of others to provide infrastructure that affects the wider population, whose design & construction techniques & ongoing long term maintenance cannot be assured.

These issues could well fall back on to the Public Purse costing many times more to correct than the original saving that was considered to have been made.

**12.4 Highways** - The highways department within Southend Borough Council has a responsibility to manage & maintain the road drainage network within the Borough---They are responsible for ensuring that drains & gullies be kept clear from debris such as soil, dead leaves, and rubbish.

Clearly, recent failures to carry out this function effectively have been a major contributor to Street Flooding over recent years!