Area West Committee – 19th March 2014

7. Flooding, Drainage & Civil Contingencies

Strategic Director:	*Vega Sturgess, Operations & Customer Focus*
Assistant Directors:	*Laurence Willis, Environment*
Service Managers:	*Garry Green, Engineering & Property Services Manager*
	Pam Harvey, Civil Contingencies & Business Continuity Manager
Lead Officers:	*Roger Meecham, Engineer*
	Pam Harvey, Civil Contingencies & Business Continuity Manager
Contact Details:	*roger.meecham@southsomerset.gov.uk or (01935) 462069*
	pam.harvey@southsomerset.gov.uk or (01935) 462303

Purpose of Report

To provide an update on aspects of flood and water management, including recent changes to the various roles, powers and duties of land drainage.

There will be a Powerpoint presentation to accompany this report and if Members would like a copy of this or any of the individual slides they should contact the officer.

The Civil Contingencies & Business Continuity Manager will also hopefully be able to attend the meeting to advise on civil contingencies matters.

Public Interest

South Somerset has an extensive river and watercourse network with variable characteristics. The majority of the area ultimately drains in a north-westerly direction via the River Parrett then to the Bristol Channel. The catchment to the southwest of Chard drains via the River Axe to the English Channel.

As has been well demonstrated in the flood events of November/December 2012 and in December/January/February 2013/14 the low-lying areas of the Somerset Levels are particularly susceptible to flooding from long duration rainfall whereas the upper parts of the catchment and the urban areas tend to be more susceptible to flooding in more intense rainfall conditions.

There are a number of organisations that have a role in respect of land drainage and flooding. Their roles are set out in this report and at Appendix A.

Recommendation

That members note and comment on the content of the report and presentation.

1. Background and Legislation Changes

Following the flooding events in 2007 a review of the roles of various organisations in respect of flood risk management was carried out by Sir Michael Pitt. This '**Pitt Review'** looked at ways by which the roles could be clarified and improved. The Review also identified:

- The need to ensure that flood risk from surface water (pluvial flooding) is effectively addressed (rather than just fluvial flooding);

- The need for collaborative arrangements and partnerships between the various organisations involved in flood risk management;

- The leadership role to be undertaken by upper tier authorities (County and Unitary).

These changes have now effectively been brought about by the Flood & Water Management Act 2010. The Act is seen as the 'rationalisation' of the various existing legislation and in the process a number of other issues have been addressed.

One of the main provisions of the new Act is the designation of a new role of 'Lead Local Flooding Authority (LLFA)' and this role has been assigned to Principal Authorities (County/Unitary Councils). The LLFA's have taken on many of the original land drainage and flooding functions of the Environment Agency and District Councils in respect of 'ordinary watercourses' (i.e. not 'main rivers').

In addition LLFA's have also been allocated the role of dealing with surface water run-off issues that weren't covered by previous legislation.

LLFA's have also been allocated an overall strategic co-ordinating function in respect of flooding and additional **duties** to investigate flooding incidents in order to identify the appropriate body to deal with it.

Summarising the Flooding and Land Drainage Roles:

a. What's the same?

- District Councils, **as a non-statutory function**, can still use powers contained in Section 14 of the Land Drainage Act 1991 to carry out improvements to 'ordinary' watercourses *(defined as all rivers, streams, ditches, drains, cuts, culverts, dikes, sluices and sewers – other than public sewers – and passages through which water flows*) in order to alleviate flooding problems.

- The Environment Agency still has jurisdiction over main rivers.

- The Highway authority (Somerset County Council and/or Highways Agency) is still responsible for highway drainage/flooding.

- Landowners (riparian owners) are still ultimately responsible for maintenance of watercourses adjacent to their own property.

b. What's changed

- Consenting/enforcement powers under Section 23 of the LD Act 1991 for structures (culverts, pipes, weirs, bridges, etc.) in watercourses are now with Somerset County Council as the 'Lead Local Flooding Authority' (this function was previously with EA).

- Section 25 powers (enforcement of **maintenance** by riparian owners) are now with County Council (previously with District Council and/or County Council). This role can be delegated to District Councils under an agreement.

- Reservoir regulations have changed in respect of the requirements for owners to carry out monitoring of dam structures, etc. and prepare emergency plans. These new regulations apply to Chard Reservoir although this was already the subject of previous regulations.

c. What's new

- New role for Somerset County Council as 'Lead Local Flood Authority' (LLFA) which brings with it:
  - A strategic co-ordinating function,
  - Duty to act consistently with national and local strategies,
  - Duty to investigate flooding incidents and determine which authority should respond,
  - Power to request information from other drainage bodies (District Councils, Drainage Boards, EA),
  - Powers (under revised S14) to deal with surface water and ground water flooding problems,
  - **Role as SUDs Approval Body for approving and adopting SUDs on new developments. This is seen as an important new function as it should hopefully resolve the adoption issues. Please note that this particular function has yet to be introduced – the target date is currently October 2014.**

- Duty for all drainage bodies to cooperate with each other and provide information.

The current roles of the various drainage organisations are set out in Appendix A.

2. Current SSDC Policies and Procedures

a. General Policy

The Council's general policy with regard to flooding has always been to alleviate internal flooding of properties. This policy was last reviewed by District Executive at their meeting in September 2002 when it was confirmed that:

"the Council will, subject to availability of resources and finance, use its best endeavours and permissive powers to alleviate internal flooding of properties."

b. Emergency Assistance

At the same meeting the Council's District Executive approved a policy in respect of provision of sandbags. This policy currently states that:

"Priority will be given in the provision of sandbags to domestic property at imminent risk of an internal flooding emergency and that the number of free sandbags will normally be limited to 6 per external doorway (excluding doorways to garages or outbuildings)."

Since 1998 (when records started), approximately **55,000** sandbags have been issued with over **7,000** of these being in 2012 and in excess of **4000** in 2013/14. This is in addition to other emergency works carried out by the Council's crews whilst operating in flooded areas. In order to make the service more efficient the option of establishing local storage/collection points for sandbags has been looked at and discussed with various parish councils but identifying suitable venues/access has often proven to be problematical. Logistical problems in the distribution of large numbers of sandbags to various locations have, in the last few years, prompted the purchase of special, gel-filled bags that are much easier (and safer) to transport in large numbers.

In recent years the focus has been more on giving advice to members of the public about ways in which they can help themselves in dealing with flooding of their property although this is generally only appropriate where works required are within their own

property rather than on 3rd party land. The use of flood boards or similar devices and/or the creation of permanent defences such as raised steps are seen as more effective alternatives to sandbags and are generally advocated.

In addition to the provision of sandbags the Council's Civil Contingencies role involves:

- collation of information and requests for assistance (including evacuations);
- assisting with the setting up of emergency rests centres and
- regular communication with the County-wide Civil Contingency Unit

c. Routine Maintenance

In order to ensure continued effectiveness of watercourses that have been improved as part of past flood alleviation schemes, maintenance works are carried out by the Council's Streetscene Services operatives. The total length of watercourse currently maintained is approximately **11km** and the internal cost recharged in this respect for 2013/14 will be **£20,495**.

In addition to the routine maintenance of watercourses the Council's Streetscene team also check some **63** debris screens on a regular basis. The internal cost recharged in this respect for 2013/14 will be **£16,136**. A number of these debris screens relate to culverts passing under the highway that are, technically, the responsibility of the Highway Authority and the possibility of recharging this element of the costs (approximately £2,100) is being considered.

The extent of the routine maintenance carried out by the Council was subjectively reviewed in 2006. This review resulted in some reduction of lengths of watercourse maintained, focussing on those lengths that were considered 'critical' to the drainage system.

d. Capital and Minor Works

SSDC has, since the mid '70's, maintained an active role in dealing with flooding problems and providing assistance and advice to members of the public in this respect. Since that time **45** Capital flood alleviation schemes have been implemented, mostly with Government grant aid, at a total cost of approximately £3.5m.

Changes in Government funding criteria and availability a few years ago resulted in a switch from implementation of Capital projects to minor works using the Council's Revenue funds. This was seen as a way of providing more responsive basic flood relief across a broader area. Since 2006 an annual average of approximately £24,000 has been used to deliver a total of approximately 200 of such drainage improvement works.

3. Rainfall and Flooding 2013/14

a. Rainfall for Winter 2013/14

Met Office Summary:

"The following represents a provisional assessment of the weather experienced across the UK during Winter 2013/2014 so far (December 2013 and January 2014) and how it compares with the 1981 to 2010 average.

A major winter storm affected northern areas on December 5th but otherwise the weather was quiet until mid-month. However, from mid-December to early January, a rapid succession of deep low pressure systems brought exceptionally stormy and wet conditions to the UK, with winds often gusting at 60 to 70 mph and persistent heavy rain. Although the worst of the storms then eased, unsettled and very wet weather continued until the end of January. During January, coastal flooding affected exposed southern and western coasts, while large swathes of the Somerset Levels remained under floodwater for most of the month. The westerly weather type meant that conditions were mild, with snowfalls confined to the Scottish mountains.

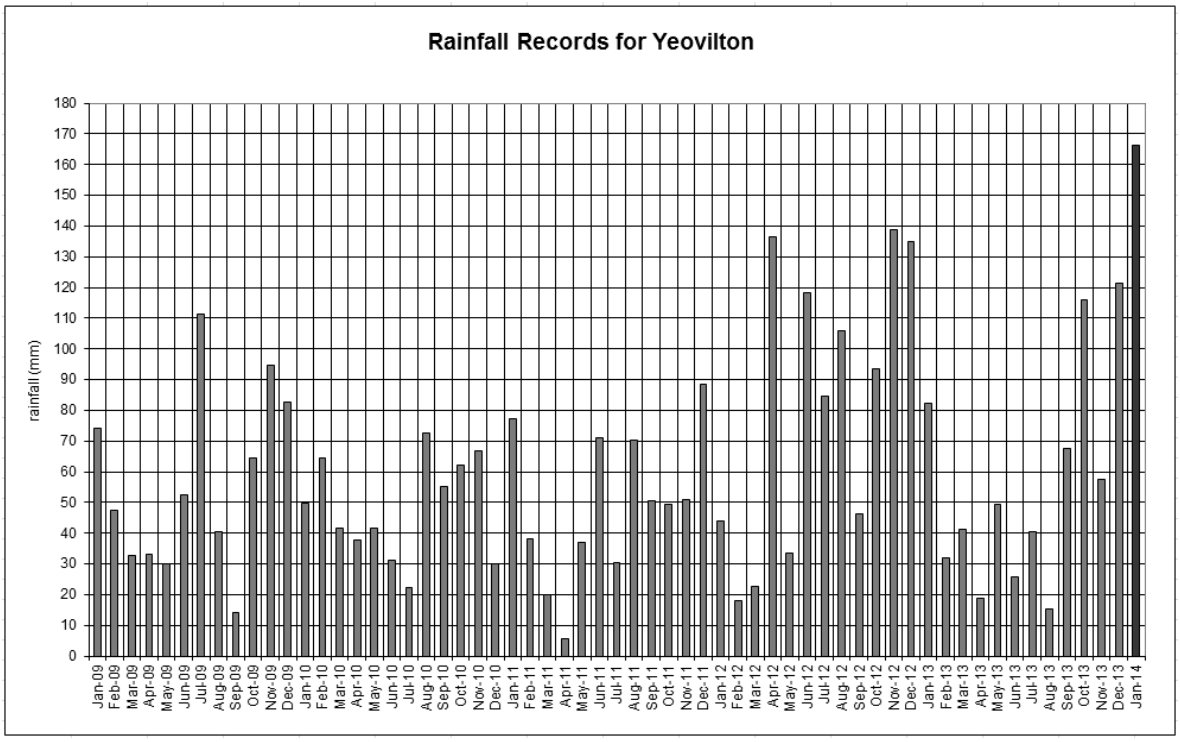
Rainfall totals in December exceeded twice the monthly average across much of south-east England and Scotland, where it was provisionally the wettest calendar month in the series from 1910. The UK overall recorded 154% of average rainfall. In January, much of southern England recorded two to three times the average rainfall and in south-east England it was the wettest calendar month in the series from 1910. Most other areas were also much wetter than average except for the far north-west. The UK overall recorded 151% of average rainfall.

January 2014 was also the wettest January in the England and Wales precipitation series that is based on a much smaller network of rain gauges, but extends back to 1766, with January 1948 being the closest comparable to January 2014."

For the months of December 2013 and January 1014 Met Office rainfall totals for the Southwest England were 203.4mm and 247.8mm respectively both of which are significantly above the 'norm'.

The above weather pattern has continued into February. Unconfirmed rainfall figures for a location in Yeovil recorded a total of 489mm of rainfall for the two month period between 13th December and 12th February. When one considers that the long term average annual rainfall for the Yeovil area is 708.5mm the figure of 489mm shows that the recent rainfall has been exceptional.

Met Office monthly rainfall figures for Yeovilton in recent years are shown in the graph below from which the events at the end of 2012 and 2013 can clearly be seen.



b. Flooding in South Somerset 2013

A similar pattern of rainfall to that experienced in December 2012 occurred again in December 2013 and January/February 2014 whereby the ground had been saturated over long periods and the 'sponge' effect was lost resulting in almost 100% run-off from agricultural land bringing with it much silt and debris to block drainage systems.

This gave rise to a number of 'local' flooding problems affecting properties and highways. Highway flooding has been a particular feature of the recent flooding and much of this can be attributed to surface water run-off from fields as mentioned above Information in respect of these local problems is still coming in and the overall picture probably won't be known for some time. Council members are asked to inform the Council's Land Drainage Engineer, Roger Meecham, about problems that have given rise to internal flooding of properties. Highway flooding problems should be referred to Somerset County Highways.

The main impact of the almost continual run-off has, of course, been very severe in low-lying areas particularly the Somerset Levels where some 120 properties have reportedly been subject to flooding, access to some communities has been cut off and agricultural land has been submerged over an extended period. About one third of the affected properties are within the SSDC area.

During the flooding event the District Council's emergency crews and other officers have worked extremely hard, often in difficult circumstances, to distribute in excess of **4000** sandbags to a considerable number of locations across the District. The cost of the emergency assistance provided by the Council has yet to be identified but without it we can safely assume that considerably more properties would have been flooded.

In addition, Council officers have been much involved in dealing with the social impact, health matters and evacuation procedures relating to the flooding emergency.

At the time of writing this Report high level, multi-organisational discussions are taking place with regard to possible Government-led measures and/or strategies that can be introduced to try and prevent or reduce the scale of the flooding that has occurred. These measures are expected to include both long term strategies and short term provisions.

Financial Implications

None from this report.

Expenditure/Budget figures for the Land Drainage Revenue Budget are set out below for information:

	2011-12 Actual	2012-13 Actual	2013-14			
			Budget	To date (13/2/14)	Estimated to follow	Anticipated total
Routine Maintenance	35,072	36,841	35,270	27,474	10,158	**37,632**
Minor works/ projects	22,487	12,349	48,600	3,682	21,500	**25,182**
Emergency(gell-bag purchases, etc.)	3,754	14,975	0	11,895	3,000	**14,895**

Miscellaneous items	3,012	3,079	3,150	190	3,000	**3,190**
TOTALS	**64,325**	**67,244**	**87,020**	**43,241**	**37,658**	**80,899**

Council Plan Implications

Focus Two: Environment

- We will continue to support communities to minimise flood risk.

Background papers: *None.*