

Joint Area North Committee – 28th January 2009

13. Water Management and Reducing Flood Risk in Area North

Portfolio Holder: Cllr Patrick Palmer, Chairman of Area North Committee
Head of Service: Brian Tufton, Head of Engineering & Property
Lead Officer: Roger Meecham, Engineer, Engineering & Property
Contact Details: roger.meecham@southsomerset.gov.uk or (01935) 462069

Purpose of the Report

The purpose of this Report is to update Members on progress in dealing with land drainage and flooding matters across the District

Recommendation

It is recommended that Members note the current situation with regard to flooding and land drainage issues.

Background

Flooding update reports are periodically presented to Members in order to advise them of ongoing flood alleviation works and any policy issues or developments in respect of flooding matters.

Report

1. Rainfall Trends and Flooding

a) Rainfall Trends

Whether it's climate change, global warming or just cyclical changes, rainfall events continue to be extremely variable but the 'trend' seems to be more towards the intense storm events rather than prolonged rainfall. Over the last year there were some notable events of this type in mid January, at the end of May and in mid September 2008. The event at the end of May was the more serious in terms of localised flash flooding and gave rise to many flooding problems at urban locations including Crewkerne and Yeovil.

At Crewkerne, on 29th May, the Environment Agency advise that some 52.64mm (2") of rain fell in a period of about 80 minutes. This, statistically speaking, represents a storm frequency of 1 in 140 years although, it has to be said that the frequency calculation is based on historical records that may no longer be really valid. One indisputable fact is that 2" of rainfall falling on 1 acre of impermeable surface will result in a total run-off of approximately 45,000 gallons – enough to fill an average semi-detached house to a depth of 20feet.

These sorts of events do not necessarily show up in the annual or even the monthly rainfall figures but are obviously very noteworthy in the media and, more particularly, to those affected by flooding. The variable location, unpredictability and relative suddenness of such storms give rise to difficult logistical problems in terms of emergency responses.

However, a rainfall event that occurred on 12th/13th December was of a more 'normal' pattern for a winter storm when ground conditions, saturated by previous steady rainfall, are unable to absorb an ensuing heavier rainfall. In these conditions significant run-off occurs from agricultural land often brings with it silt and debris that blocks drainage systems already struggling to cope. The Environment Agency figures for Queen Camel and West Camel, where serious flooding occurred affecting some 25 properties, indicate that 30mm of rain fell over an 8 hour period but, more importantly, 10mm of this fell in the final hour of the storm. The general affect of this rainfall event was very widespread across the whole District. Reports are still coming in but it is estimated that something in excess of 100 properties were flooded in this latest event with many of these in Area North e.g. Ash, High Ham, Huish Episcopi, Ilton, Martock, Somerton, Shepton Beauchamp. In order to establish further details the intention is to write to all parish councils requesting information about flooding in their parish. This will hopefully supplement our own information and give a better picture.

b) **'Localised' Flooding –**

Urban areas are particularly sensitive to flash flooding which is more associated with surface water (pluvial flooding) than overflowing watercourses (fluvial flooding) although the two can often occur together. Such was the case in and around Crewkerne and at Yeovil on 29th May.

Many problems in flash flooding events relate to sewerage and highway drainage systems becoming blocked or overwhelmed and these are generally beyond the remit of the District Council. Where such problems are reported to the Council they are referred to the sewerage or highway authority as appropriate although, in some cases, advice/assistance on self-help options such as local flood protection measures is given where the problem is a recurring one.

Flooding problems across the whole area are the subject of ongoing investigations and implementation of minor works to alleviate them. A schedule of these works is attached at Appendix A. Recent events have prompted many more investigations and these will be added to the list although **it is important to note that action, if any, in many cases may be down to the highway authority or to individual property owners where watercourses in their ownership may require attention or the installation of flood defences is the only reasonable solution.**

c) **Development Impact –**

Global warming and climate change are topical issues but much has been said about the impact of new development in respect of flooding problems. Development in flood plains and the effect of increased surface water run-off are very real issues but the development control process now takes account of these.

PPS25 (Planning Policy Statement 25) sets out the need to take these factors into consideration and requires that Flood Risk Assessments are carried out for many planning applications and especially for larger sites.

The general principle for new development is that the surface water run-off from the developed site should be no greater than that from the undeveloped site. On-site controls in the form of Sustainable Drainage Systems (SUDs) are the means by which this objective is generally delivered.

Alongside site specific Flood Risk Assessments there is a requirement for the Council to prepare a Strategic Flood Risk Assessment (SFRA) identifying locations with potential flooding problems across the whole District. Consultants have recently completed the SFRA for South Somerset and this can be viewed on the Council's website at www.southsomerset.gov.uk/index.jsp?articleid=27759

2. Emergency Flood Defence Measures

The Council continues to issue sandbags and the general policy in this respect is that 6 bags per doorway will be issued free of charge to households that are in imminent danger of flooding. A charge of £2.50 per bag will normally be made if more are required but delivery of these 'extra bags' is often restricted on the basis of giving priority to those in urgent need. The Council's policy is that prevention of internal flooding is more important than protecting gardens or outbuildings. It is often the case that householders order sandbags as a precautionary measure in order that they are instantly available when required. There is normally a charge for the sandbags in this situation. One drawback with this is that, unless kept in the dry, sandbags have a limited life and can often disintegrate at the critical time. Alternative types of sandbags have been looked at in order to overcome this particular problem but these may not always be suitable.

Logistical problems of delivering sandbags to properties across the District are a serious issue and coupled with this is the potential safety risk to Council staff in carrying out this exercise in what can often be difficult circumstances. Vehicular access to deliver sandbags to West Camel was actually denied by the Police in the event on 13th December. One option being considered is the setting up of local, parish-based sandbag stores which would be established by the District Council in partnership with parish councils. A letter was sent to all parish councils at the end of August suggesting this approach and of the 33 responses received, 11 expressed an interest in this idea. This initiative is being followed up.

The need for householders to consider self-help measures is being actively promoted and, with this in mind, a series of Flood Awareness event are being planned by the District Council's Engineering and Emergency Planning teams. These are mentioned later in this Report.

Following the flood event on 13th December, Councillor Tim Carroll issued a Briefing Note to Members setting out Emergency procedures in a flooding event. This Briefing Note is attached at Appendix B for information.

The actual cost of providing sandbags over recent years is set out in the table below.

Cost of Sandbag Service

	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	May 2008	Dec 2008
Number of Sandbags Delivered	5,124	3,382	1,399	228	1,168	445	2,235	689	1500
Internal recharge for Delivered Sandbags	£3,660	£8,455	£3,498	£570	£2,920	£1,120	£5,588	£1,723	£3,750
Standing Charge for Standby Crew	£7,880	£7,880	£7,880	£7,880	£7,880	£3,060	£8,500		
Standing Charge for Skip Luger	£4,040	£4,040	£4,040	£4,040	£4,040	£4,000			
Total	£15,580	£20,375	£15,418	£12,490	£14,840	£8,180	£14,088	£1,723	£3,750

3. The Pitt Review (Flood Response and Public Awareness)

Following the severe flooding events that occurred in the summer of 2007, Sir Michael Pitt was tasked by the government to produce a report to assess those events and to make recommendations for improving the UK's resilience to future severe flooding. Following an extensive consultation and evidence collection process, the Pitt Review team produced an interim report in November 2007 and a final report, 'Learning the Lessons from the 2007 Floods', in June 2008. This can be viewed at <http://www.cabinetoffice.gov.uk/thepittreview.aspx>

Summary of Review - An initial analysis of the report and its recommendations are summarised as follows:

The report identifies six basic areas of concern:

- knowing where and when it will flood
- reducing the risk of flooding and its impact
- being rescued and cared for during an emergency
- maintaining power and water supplies and protect essential services
- better advice & help for people to protect their families and homes
- staying healthy & speeding up recovery

In addition, the report contains 92 specific recommendations for action by local authorities, central government, the Environment Agency, emergency services, utilities and the general public. Each recommendation proposes a lead agency. 'Local authorities' are required to "lead" on 21 of these recommendations and are expected to have a role to play in meeting many others. Pitt proposes an implementation plan to deliver these recommendations by 2010.

Government response to the Pitt Review – The initial response was as follows: *The government is committed to prepare a detailed response to the report, with a prioritised action plan, and this is due by the end of the year. In advance of the response, the Secretary of State for Environment, Food & Rural Affairs, Hilary Benn, has welcomed the report and its direction and has announced funding to implement some of Pitt's recommendations, including:*

- £5 million to develop Surface Water Management Plans in the highest priority areas.
- £1 million for mapping work to improve reservoir safety.
- £250,000 for a national floods exercise.
- Earmarking at least £34.5 million of the £2.15 billion flood and coastal erosion budget for the next 3 years to implement Pitt recommendations.

The detailed response has recently been received. This runs to 132 pages and can be seen at <http://www.defra.gov.uk/enviro/fcd/floods07.htm> A letter was also sent to all local authorities and this is attached at Appendix C. This letter sets out the Governments expectations for local authorities with regard to flooding and is well worth reading.

In its response to the Pitt Review the Local Government Association believes that local authorities, through their Local Strategic Partnerships and Local Area Agreements, are often ideally placed to take the lead role in co-ordinating the response in flooding emergencies.

For many years South Somerset District Council's policy with regard to emergency assistance and flood alleviation has been very positive and already embraces many of the Pitt Review recommendations. Some concerns have however been recognised in

respect of the emergency sandbag provision in that, in times of widespread flooding, there can sometimes, as previously mentioned, be logistical problems in responding to calls for assistance. The policy and arrangements have been under review for some time with one of the principal aims being to promote more public awareness about flood risk and to offer advice to individual property owners about what they might be able to do to protect their property e.g. installation of flood-boards. To this end, arrangements have been made for a series of locally based '**Flood Awareness**' workshops.

The first of these Flood Awareness workshops ('Coping with Flooding') was held at Queen Camel on 1st December 2008 and a second was held at Compton Dundon on 16th January 2009. Two more events are planned for 12th February 2009 at Crewkerne, and Donyatt (date to be advised). Members will be sent details of these in due course. This public awareness initiative is very much in line with recommendations from the Pitt Review.

4. Floods and Water Bill

Following the Pitt Review and the Government's Water Strategy, *Future Water*, the Government has announced a draft Floods and Water Bill for consultation in 2009. During July Defra launched two further documents in response to the floods: *Consultation on policy options for promoting property-level flood protection and resilience* and, jointly with the Environment Agency, *Towards a New National Flood Emergency Framework*. These are just the latest of a whole series of consultation and advisory documents to do with flooding issues that have been issued in recent years.

The 'Floods and Water Bill' is set to radically change the current legislation to do with flooding and drainage and associated responsibilities. It will also, hopefully, clarify a number of irregularities and address confusion that currently exists.

5. Routine Maintenance

Despite the fact that maintenance of watercourses is the responsibility of the landowner, the District Council does undertake, via Streetscene Services, annual (and sometimes twice-yearly) maintenance of about 10km of watercourse. The Council also checks and clears some 70 debris screens across the District on a regular basis. This work is carried out in what are considered to be particularly vulnerable locations and mainly where flood alleviation projects have been carried out by the Council. The cost of this routine maintenance work is approximately £33,000 /year.

This maintenance work is in addition to maintenance of about 4km of critical ordinary watercourses (main rivers) on behalf of the Environment Agency.

6. Minor Works

In spite of the recent 'freak' events there has been a general reduction in widespread flooding problems and, although much of this reduction can be attributed to the different pattern of rainfall, it must also be recognised that over the last few years there have been a significant number of minor flood alleviation works implemented. This, combined with advice being given to members of the public about self-help options, gradual changes in land management practices, etc., has helped to reduce the number of properties at risk of flooding across the district as a whole.

Minor works are continuing and the current schedule is attached at Appendix A.

Financial Implications

Details of the 2008/09 District-wide budget and expenditure in respect of land drainage works are shown in the table below. Predicted expenditure on 'Non-routine' is uncertain at this time as it depends on:

- a) Possible flooding events and the requirements for sandbags (or floodboards) during the forthcoming winter are unknown quantities.
- b) The schedule of Minor Works is based on currently known problems whereas others may be identified in the ensuing months.

Land Drainage Expenditure (Revenue) 2008-09

Code KP145	Description	Budget	Actual at 30/11/08	To follow (est'd)	Anticipated total	Balance
1000	Routine (maintenance of ditches, screens)	37,530	16,525	16,524	33,049	4,481
1001	Non-routine (minor works, sandbags, etc)	47,340	24,516	27,900	52,416	-5,076
1100 & 1260	Operational Costs & NNDR	3,700	2,907	0	2,907	793
2000	Transport group (standby crew, etc)	11,730	0	8,000	8,000	3,730
3990	Misc Exp / projects	0	3,075	1,000	4,075	-4,075
9930	Regular income	0	-199	-100	-299	299
	Totals	100,300	46,824	53,324	100,148	152

Implications for Corporate Priorities

Dealing with flooding problems and offering advice to members of the public in respect of flooding matters fulfills the Council's Corporate Aims of promoting a balanced natural and built environment and of improving the health and well-being of our citizens.

Other Implications

None at this time

Background Papers: *Area North Report January 2008, Scrutiny Committee 9th October 2008*