



Report to Policy Review Scrutiny Committee

Subject: Update on Nottinghamshire County Council Flooding (Drainage and Watercourses) Select Committee

Date: 22nd July 2008

Author: The Scrutiny Officer

1. Purpose of the Report

To update Members on the findings and conclusions reported at Nottinghamshire County Council's Flooding Select Committee.

2. Background

Gedling Borough Council has been working collaboratively with Nottinghamshire County Council to assist them in their examination of the issues relating to flooding and the maintenance of drainage systems and watercourses within the Nottinghamshire County Council area (which includes Gedling Borough). Councillor M. Shepherd was nominated from this Committee to represent Gedling Borough Council on the Nottinghamshire County Council Select Committee and has attended their designated Committee meetings (including a site visit to North Leverton) to help inform this review.

3. Proposal

That Councillor M. Shepherd gives this Committee a brief verbal update on the summary findings and conclusions made by the Nottinghamshire County Council Flooding Select Committee. (Please see the final report attached at Appendix 1).

4. Recommendations

That Members note the information provided by Councillor M. Shepherd.

report

Appendix 1



meeting	FLOODING (DRAINAGE & WATERCOURSES) SELECT COMMITTEE	
date	30 June 2008	agenda item number

Report of the Chair of the Flooding (Drainage & Watercourses) Select Committee

Draft Final Report

Purpose of the report

1. To summarise the findings of this scrutiny review and to present recommendations.

Background

2. On 10 December 2007, further to a resolution of County Council, the Overview and Scrutiny Committee commissioned a Select Committee to examine the issue of flooding issues, particularly as they relate to the maintenance of drainage systems and watercourses.
3. The aim of the review was stated to be “To consider why areas of Nottinghamshire were so badly affected by flooding in July; if the effects could have been less severe or prevented through better maintenance of local drainage systems and watercourses and what measures can be put in place to prevent a reoccurrence in the future. To look at what systems were in place to assist those affected and how these could be improved in the future should high levels of flooding happen again.”

Evidence Gathering

Overview of the Summer Floods

4. On 28 January 2008, the Select Committee received a briefing from John McGuigan, Emergency Planning Manager which provided an overview of the summer floods of 2007 in Nottinghamshire. Mr McGuigan explained

the widespread nature of this pluvial flooding (i.e. flooding from severe rain) which overwhelmed drains and watercourses resulting in substantial damage to domestic properties, businesses, schools and the local infrastructure, such as, roads, electrical substations and sewage works.

5. Mr McGuigan gave numerous examples of the misery caused by this unprecedented flooding, including North Leverton with Hablesthorpe where an electrical substation was flooded, members of the public had to be evacuated from their homes and the local primary school has still not re-opened.
6. In Little Carlton, flood damage to homes was made worse by sewage backing up into properties; while at Southwell Races the racetrack was “torn up” by the effect of the water, resulting in severe financial loss. Another of the worst hit villages was Lowdham where over 200 properties were flooded.
7. Across the whole county the number of flooded properties was as follows:

• Ashfield DC	61
• Broxtowe BC	6
• Bassetlaw DC	801
• Gedling BC	53
• Newark & Sherwood DC	470
• Mansfield DC	20
• Rushcliffe BC	0
8. Mr McGuigan also pointed out that fat being put down drains was a problem that could exacerbate flooding. In addition there was a need to develop a sandbag policy with district councils (see section on sandbag policy below)
9. Further to this presentation, on 25 February Mr McGuigan briefed the select committee on the multi-agency response to the summer floods. Some agencies have a pro-active responsibility to prevent flooding taking place others are reactive and reduce the damage caused by flooding. By concentrating on being pro-active the response phase may be lessened. The responsibilities of the various agencies are detailed below:
10. Nottinghamshire Police:
 - Coordinate the emergency response
 - Assist in rescue/recovery of casualties
 - Assist with evacuation of property
 - Establish appropriate cordons

- Coordinate the response to the media
- Close the highway where necessary
- Protection and security of evacuated premises
- Traffic management
- Casualty Bureau
- Conduct criminal investigation when necessary

The casualty bureau can be set up as necessary and is based at Hucknall Police Station. Police resources utilised during the summer floods included the helicopter used at North Leverton. The police also took action regarding a farmer who went missing in Attenborough.

11. Nottinghamshire Fire and Rescue Service:

- Save life, rescue and assist in recovery of casualties
- Pump out premises/land where appropriate
- Support incident command
- Provide health and Safety
- Support Media Response

One of the difficulties encountered by the Fire and Rescue Service during the summer floods was that there was nowhere to pump the water – one instance of this took place in Lowdham.

12. Nottinghamshire County Council:

- Planning and preparation
- NCC Incident co-ordination
- Warning and informing
- Managing accommodation for evacuees
- Responsible for surface water drainage
- Providing sandbags / pumps for flood alleviation / clear drains / culverts
- Provide boats on request
- Identifying vulnerable people
- Co-ordinate recovery.

The County Council is responsible for the multi-agency flood plan. The County Council does not have a duty to provide sandbags to all domestic properties at risk of flooding.

13. District/Borough Councils:

- Assist with flood alleviation such as issuing sandbags, clearance of blocked culverts,

- dealing with flooded roads and traffic diversions
- Provide equipment, information, personnel and expertise to assist the emergency services
 - Provide emergency care for those who have been evacuated or those affected by flooding but remaining in their home
 - Provide environmental health advice
 - Support the recovery of the community.

One of the most vital aspects of the function of Districts and Boroughs is around environmental health advice – particularly relevant to home owners who have suffered from backed up sewage.

14. The Environment Agency:

- Issue flood warnings
- Maintain flood defences
- Provide pumps when necessary
- Liaise with community via Flood Wardens
- Monitor water levels and advise as necessary
- Support the media response
- Support incident command.

The Environment Agency can also assist with the provision of sandbags, subject to availability of resources not otherwise engaged on the above priority areas of work (note – The Environment Agency has no responsibility to provide sandbags to the general public).

15. Internal Drainage Board:

- Levying of drainage rates, their collection and keeping accounts
- Maintenance of drains, pumping stations and flood defences serving notices
- Environmental improvement
- Promotion of capital schemes for drainage and flood defence improvement
- Emergency response during flood by providing staff, resources and local knowledge
- Public relations
- Dealing with planning applications (discharge consents and flood risk assessments)
- Flood records and post-flood survey

Internal Drainage Boards have a number of responsibilities under the Land Drainage Act 1991, including the authority to deepen, widen

straighten or improve watercourses within their area and to serve notice on riparian owners that they will be carrying out works and charging for them.

16. Utility Companies:

- Secure services and equipment to ensure continuity of supply
- Repair services disrupted by flood events
- Provide alternative means of supply during service disruption
- Advise local authorities and communities when services will be reinstated

Utility companies will bring in their own sandbags and pumping resources.

17. The Select Committee noted the complex interlocking nature of the multi-agency response and concluded that agencies' responsibilities and contact details should be better publicised.

Sandbags Policy

18. Rob Fisher, Head of Emergency Management and Registration briefed the select committee on the usage and limitations of sandbags on 25 February. Mr Fisher re-emphasised that there is no duty for local authorities to protect properties with sandbags. Sandbags are not the easiest of materials to work with – the County Council maintains its stock of sandbags for holding down temporary road signs in the wind. The mass transportation of sandbags into flooded areas may be problematic in any event. However, sandbags can divert shallow flowing water – if it has somewhere to go. They can also protect homes from the wash caused by vehicles driving through floodwater. During the summer floods over 150,000 sandbags were issued across the county.
19. West Sussex County Council operates a policy of only supplying sandbags to residential properties being flooded from the highway. Where properties are at risk of flooding from a watercourse, residents are directed to procure their own sandbags from a builders' merchant.
20. At a Nottinghamshire sandbag depot security guards had to be employed to prevent members of the public collecting sandbags – the numbers of people were causing access problems for staff. There have also been instances where sandbags deployed near watercourses have been removed and placed by residents outside their homes. There have even been incidents where people have attempted to sell sandbags on e-bay.

21. In conclusion, Mr Fisher explained that sandbags were not a panacea to flooding events. There are other products – such as air brick covers and floodgates which are more effective.
22. Ian Harrison, the Resilience Manager at Newark and Sherwood District Council also contributed to the select committee’s briefing on sandbags policy. Mr Harrison stated that although sandbags provided a limited benefit they were a tangible overt response which helped the confidence of communities and flood victims. However, with flash flooding there was a difficulty in deploying sandbags in time. In addition, the deployment policy is based on risk not request and this presents difficulties in terms of negative feedback.
23. Newark and Sherwood District Council has also undertaken trial use of “Acqa” silicon granule sacks, which can be stored flat and dry until needed – when they can be distributed to isolated and vulnerable properties. “Acqa” silicon bags cost only £3.
24. The select committee noted an area of possible policy development around the strategic storage of sandbags near where they are likely to have to be used in order to overcome the logistical problem. There were also awareness raising issues for the public around the limitations of sandbags (and the superior alternatives) and the potentially anti-social nature of driving at speed through floodwater thereby exacerbating the flooding with bow waves.

Newark & Sherwood Resilience Programme

25. Ian Harrison explained that the resilience programme in Newark and Sherwood supported principles around “community” and cohesion and can be used to support resilience to all threats.
26. Corporate promotion of resilience at Newark & Sherwood includes: the Council’s assessment of strategic risk, strict compliance with planning policy guidance (e.g. PPG/PPS 25) and building control around business and domestic development and extensions.
27. Newark and Sherwood’s wider promotion of resilience includes annual risk and resilience conferences and workshops, events at the Newark & Notts Show, facilitation of a flood fair in Lowdham, training for volunteers and a partnership with flood proofing companies.
28. Newark and Sherwood District Council has also entered into a partnership scheme with DEFRA and the Environment Agency which has resulted in 17 high risk properties in Gunthorpe being flood proofed and £90,000 being made available for work on 15 properties at risk at Bleasby and

Gibsmere (NB – this scheme relates to properties at risk from river flooding rather than flash flooding caused by severe rain).

29. Mr Harrison also reported that a Risk and Resilience Conference which took place on 4th October 2007 supported the following options
- Watercourse mapping and condition survey (with maps passed to Parish Councils)
 - Watercourse monitoring by local volunteers
 - Provide information on who does what
 - Deployment of local resources including sandbags, stores, signs etc.
30. The Select Committee noted these options and observed that existing groups (e.g. Neighbourhood Watch) could provide a ready pool of volunteers for monitoring watercourses.

Highway Drainage

31. Andy Wallace, Drainage Manager, provided information to the Select Committee about Highway drainage issues. Mr Wallace explained that highway gullies are emptied just once a year. The County Council made the decision to reduce to once a year from twice a year (or even once a quarter in some areas) in 1998. There is also more debris and litter entering gullies because of less sweeping by District Councils. The cost of gully emptying and drain cleaning is put at £600,000 per year.
32. Gullies connect into highway drains and then into Severn Trent sewers, watercourses or soakaways, alternatively they can connect directly into Severn Trent surface water sewers, combined Severn Trent foul and surface water systems or directly to private estate systems. There are often no proper records relating to these systems.
33. The County Council's Highway Drainage Assets include nine highway drainage pumping stations – which can be subject to different inspection regimes – and a large number of culverts carrying watercourses across the highway. Where there are ditches or drains these are often the responsibility of the adjacent land-owner.
34. The immediate highway cost in dealing with the flooding was £1,071,000. The capital highway costs to deal with the consequences of flooding are, for 2007/08, £941,000 and for 2008/09 £1,345,000.
35. In order to address highway drainage issues the County Council has already appointed a Drainage Manager (in line with recommendations of the Pitt Review into the summer 2007 floods). In addition, the Authority

has purchased a specialist drain cleaning vehicle which has been used to clear 119 drain blockages (since its introduction in August 2007 up to early March 2008). It is interesting to note that 16 of the 119 problems were caused by drains being damaged by utility works i.e. utility companies laying cables or pipes.

36. The outstanding issues for highway drainage are as follows: there is no investment in capital drainage improvements and a lack of capacity in existing systems. This is combined with the effects of climate change and increased intensity and frequency of storms.
37. The Select Committee noted the reduction in the frequency of gully emptying on cost grounds and felt that there would be great benefit in instituting a spring and autumn clean of gullies.
38. The Select Committee also noted the lack of capital investment in drainage improvement as a possible area for recommendation.

The Environment Agency

39. On 31 March, Paul Lockhart, Area Flood Risk Manager for the Environment Agency briefed the select committee on the Environment Agency's capital schemes – the Nottingham Left (North) Bank Flood Alleviation Scheme; this proposed scheme will protect over 16,000 properties from Sawley near the M1 to Radcliffe Viaduct at Colwick. Additionally, the £14.7m West Bridgford scheme, to be largely completed in the summer of 2007, will protect 5600 homes.
40. Mr Lockhart recognised that there was no flooding from the Trent itself during the summer 2007 floods. The Environment Agency has responsibility for flooding from “main rivers” and in Nottinghamshire these include: the Soar, Idle, Trent and Derwent. Other than the Environment Agency, there is no single body with a strategic overview thus leaving the EA best placed to engage in a “holistic” approach to managing flooding.
41. The Environment Agency works closely with Severn Trent Water and welcomes the appointment of Andy Wallace at NCC as Drainage Manager.
42. Due to the severe flooding in Lowdham, the Environment Agency has commissioned consultants to carry out a review of the Lowdham Flood Alleviation Scheme and suggest options for improvement (the results of which are due shortly). A working party has been set up to work through the issues and keep the local community informed.

43. The Environment Agency has also carried out extensive de-silting throughout Lowdham in conjunction with the Newark Area Internal Drainage Board.
44. In Woodborough, the Environment Agency has commissioned consultants to carry out a review and recommend options for improvement while also removing nearly 100 tonnes of silt from culverts through the village.
45. Further to last summer's floods, other Environment Agency projects include a feasibility study on the assessment of river channels and culverts in Worksop, surveying and cleaning of becks in Retford and the modelling of the River Greet (including the Potwell Dyke) in Southwell and Rolleston.

Severn Trent

46. Also on 31 March, Margaret Burrup of Severn Trent Water, gave a presentation on the company's role. She stated that many private drains were unadopted, and had never been raised to an adoptable standard. Public sewers in June/July 2007 had been overwhelmed by the rainfall, compounded by underlying problems affecting capacity, such as fat deposits and debris. The public were able to report drainage problems on the company's 0800 telephone number. The drains were only designed to cope with a one in 40 year storm.
47. In relation to home insurance, Severn Trent's advice to householders is not to neglect cover for fire and theft even if cover for flooding is not available to them.
48. The Select Committee noted that ultimately surface water and foul water drainage systems combined; which meant that surface water was put through expensive sewage treatment systems and that planning authorities could ameliorate this by insisting on sustainable urban drainage systems for new developments.
49. The Select Committee also noted the reluctance on the part of both the Environment Agency and Severn Trent to engage in expensive litigation and the tendency to favour negotiated settlement rather than enforcement.

Newark Area Internal Drainage Board

50. On 28 April, Steve Broadhead, Chief Engineer with the Newark Area Internal Drainage Board briefed the Select Committee on the work of his organisation. Mr Broadhead has spent the last 30 years – his whole working life – with the Newark Area Internal Drainage Board. Internal Drainage Boards (IDBs) are statutory authorities set up since 1936 to

provide drainage in low lying areas. NAIDB covers Nottinghamshire and also parts of Leicestershire and Lincolnshire across eight districts and covering 555 square kilometres. IDBs cover contour based areas defined as eight feet above highest known flood levels. Their function is to maintain natural open watercourses – NAIDB maintains 600 kilometres of watercourses. It is managed by a board of elected members (and local councillors) and meets four times a year.

51. Funding of the board is through a drainage rate on agricultural land. £500,000 is also contributed by Newark and Sherwood District Council. Newark and Sherwood were badly affected by the summer floods – especially west of the Trent (e.g. Southwell & Lowdham). NAIDB employees assisted where they could but were not in a position to supply sandbags. The Board had recently completed 6-9 months weed cutting on watercourses associated with flooding.
52. Mr Broadhead stated that under the Land Drainage Act, farmers and other landowners could be compelled to clear watercourses. However, NAIDB has never taken legal action against anyone for failure to maintain a watercourse; matters have been resolved by agreement. In the 1970's grants were paid by the Ministry of Agriculture Fisheries and Food to assist in the clearance of watercourses.

Representation from Parish Councils

53. The Select Committee wrote to Parish Councils in Bassetlaw, Gedling and Newark and Sherwood inviting submission of information on the response to the summer floods (e.g. what went well, where improvements could be made, and whether or not there was effective partnership working). These responses are summarised in Appendix A. In addition, a number of Parish Councils affected by the summer floods made representation to the Select Committee on 28 April. The following points were raised:
54. Balderton Parish Council (Councillor Angela Jarvis and Mr Bernard Gascoine)
 - The backwash of sewage experienced at Staple Lane
 - Blockage of a watercourse with a fencepost
 - The small size of drains – only nine inches in diameter
 - Complex and long-standing issues around the culvert under Warwick Road
55. North Leverton with Habbleshthorpe (Mr Colin Walker) – a quarter of North Leverton was flooded – the residents are grateful for the reinstatement of roads and the swift response of John McGuigan from the Emergency Planning Department. The level of consultation from Nottinghamshire County Council was good but concerns remained about the length of time

taken to re-open the local primary school that was closed by the flooding (not due to re-open until December 2008).

56. Mr Walker explained that North Leverton came under Laneham Internal Drainage Board – which is operated independently by consultants based in Doncaster - and had suffered worsened flooding as a result of the inundation of a pump located at the West Burton Power Station. On a point of clarification, Mr Broadhead of Newark Area Internal Drainage Board (NAIDB) added that since pumps could be subject to failure and power loss some drainage boards had tractor driven back-ups, but this was dependent on risk. NAIDB did not suffer flooding as a result of loss of power.
57. Walkeringham (Mr Peter Roberts) – Mr Roberts stated that some people were still out of their homes, but that the response from Emergency Planning had been good. However, the Highways Department has “sloping shoulders” when it comes to taking responsibility for watercourses which abut the highway.
58. The Select Committee noted the need to more widely educate members of the public about the responsibilities relating to dykes adjoining the highway – these are the responsibility of the landowner rather than the highways department.
59. Southwell (Councillor Beryl Prentice)
 - The last residents returned to their homes only three weeks ago
 - A modelling exercise will take place on the Potwell Dyke
 - The County Council is redrawing the boundaries around the new Minster School and thereby taking on riparian ownership responsibilities for the Potwell Dyke
 - Emergency Plan is not quite finished but John McGuigan has been very helpful
 - Newark and Sherwood District Council will provide a sandbag store shortly
60. Burton Joyce (Mrs Julie O’Neil)
 - Unprecedented rain resulted in blockages to culverts; the system was unable to cope
 - A large number of outbuildings flooded – this included flooding with sewage
 - More needs to be done to inform landowners of their responsibilities
 - Produced an informative leaflet for residents with contact details of agencies
 - The response from local authorities is disappointing and there is a lack of co-ordination

61. Woodborough (Councillor Margaret Briggs)
- The Environment Agency has removed 50 tons of debris from the Beck
 - Nottinghamshire County Council has utilised CCTV in drains and culverts to identify problems
 - A survey is taking place on the feasibility of major flood defence works
62. Lowdham (Councillor David Harper and Mr Martin Shaw)
- Flooded five times last summer
 - The Cocker Beck is currently subject to modelling by the Environment Agency and Severn Trent
 - The emergency services appeared to suffer from a lack of co-ordination and would have benefited from consulting people with local knowledge
 - The emergency services “Gold Command” should liaise with the Parish Council
 - Sandbags only had limited effect
 - There were problems associated with the capacity of the Merevale Bridge
 - A large pump brought from Ashfield could not be used [because there was nowhere to pump the water]

Lowdham Village Site Visit

63. On 6th May the Select Committee undertook a site visit to Lowdham accompanied by Andy Wallace, Drainage Manager, NCC, John McGuigan, Emergency Planning Manager, NCC, Dave Bartram, Environment Agency, Councillor David Harper and Mr Martin Shaw of Lowdham Parish Council.
64. Members of the Select Committee saw the Cocker Beck – a fairly substantial watercourse – and heard how the Environment Agency had cleared much of the overgrowth of plants and weeds from its banks after the flooding events last summer.
65. Walking along a footpath on the bank of the Cocker Beck, Members were told that the plastic piles deployed like an underground wall were not effective and a one metre wall was now planned by the Environment Agency to protect properties.

66. On the lower part of Main Street there is a bridge over the watercourse with a low parapet which may exacerbate flooding. This bridge is owned by the County Council. However, improvement works to the bridge would be problematic since it is the only access point for the forty or so houses in the development beyond.
67. At the Lime Tree Gardens Bridge, Members of the Select Committee saw where the old channel had been partially closed off and a new channel built. The remnants of the old channel caused problems resulting in unnecessary erosion to the far bank.
68. In the Blenheim Avenue Estate Members of the Select Committee saw the Highways Pumping Station and heard how the locks on its access hatches had been removed and replaced by the Fire and Rescue Service while taking necessary action during the course of the flood. Unfortunately, the new lock keys were passed to Severn Trent instead of NCC and this did result in an access problem. Subsequently, the Fire and Rescue Service have been informed that the pumping station is a county council asset. In addition, it was apparent that locating an unfenced pumping station in a housing development had potential health and safety implications e.g. for trips and falls/danger to children playing on it. Select Committee Members were also concerned that some residents might consider the pumping station an eyesore.

North Leverton with Hablesthorpe Visit

69. On 19th May, Members of the Select Committee visited North Leverton with Hablesthorpe – site of some of the most severe flooding in Nottinghamshire last summer.
70. The Select Committee saw firsthand the complexities of the watercourses in North Leverton. With the watercourse running along the gardens of domestic properties there were many dozens of riparian owners involved. In some places the watercourse was narrowed by the construction of ornamental stonework features (or even the installation of substantial pre-fabricated concrete walls); in others utility cables crossing the watercourse caused a restriction to the flow of water.
71. Another issue was sudden changes in the angle of the watercourse; in some instances floodwater had “hit a bend but carried straight on.”
72. The Select Committee were also shown where the road surface was scoured away by the force of the floodwater emerging from a public footpath. The road surface has subsequently been reinstated by the Highways Department.

73. The Select Committee also saw the catchwater drain, on the outskirts of the village. A severe overgrowth of vegetation on its banks that had exacerbated the flooding had now been cut back by Laneham Internal Drainage Board.
74. The Select Committee noted that in the case of both villages that it was necessary to make a site visit in order to fully understand the scale and severity of the floods and their effect on residents.

Summary of Findings

75. The frequency of gully emptying has been reduced by local authorities as an economy measure. Since a free flowing drainage system is essential during instances of sustained rainfall to prevent flash flooding this may to some extent be a false economy. There perhaps needs to be an acceptance that money spent on preventing the misery of flash flooding is money well spent – this is particularly important since development (and the construction of patios and non-permeable hard standing driveways) has substantially reduced natural soak-away and thereby increased the burden on the drainage system.
76. To be effective, an increased programme of gully emptying would require targeted communication with local residents where works are to be carried out to prevent them from parking over highway drain covers when cleansing vehicle operators require access.
77. The Newark Internal Drainage Board informed the Select Committee that it had **never** pursued a riparian owner who had not fulfilled their responsibilities through the courts. While the Select Committee has no wish to see organisations unnecessarily mired in expensive litigation, and it is obviously commendable that the vast majority of problems can be resolved through negotiation; Drainage Boards and other responsible authorities should not hesitate to bring the full force of the law against recalcitrant riparian owners.
78. The responsibility to mitigate the effects of flooding lies both with all of us individuals and with relevant agencies – for instance we all have a responsibility not to irresponsibly dispose of cooking fat down our domestic drains since it can accumulate and even block very substantial drains – likewise, agencies with a responsibility to manage the effects of flooding should robustly defend their assets against the “worst case scenario.” An example of this is the pumping station at West Burton Power Station which was inundated and resulted in worsened flooding in the North Leverton area.

79. Homeowners at risk have a personal responsibility to improve the resilience of their properties through the installation of self-closing airbricks and floodgates. The Select Committee hopes that all insurance companies have the good sense not to penalise homeowners for taking preventative action.
80. At present there seems to be an over-reliance on sandbags and unrealistic expectations of their effectiveness and a feeling that local authorities should deliver them to anyone who thinks that they might benefit from them.
81. The transportation of sandbags into areas that have flooded or are in the process of flooding is problematic. As a matter of commonsense, areas that are likely to benefit from provision of sandbags should have a local store – as near as possible to where they will be deployed. This would make residents aware of the finite provision and would circumvent the need to make logistical arrangements. It would be ironic indeed if the transportation of sandbags by heavy goods vehicles caused bow waves which worsened the flooding for some residents.
82. When flood warden schemes are being set up, existing community groups, such as Neighbourhood Watch, may prove a valuable source of volunteers and should perhaps be contacted in the first instance.
83. In the absence of a single over-arching authority responsible for all flooding issues, people likely to be affected by flooding have a right to know which services they can expect to receive from which agency or local authority. Responsibilities and contact details should be clearly presented in a leaflet or booklet to be made available to residents and businesses.
84. There is an obvious requirement for a central record of riparian ownership and responsibility. This Authority should ensure that where records exist they are collated and where they do not exist they are created following careful research. Ultimately, it might be useful if the final product of this mapping exercise is made available on-line (as Newark Internal Drainage Board's maps are at present). Further, the identification of riparian owners would allow them to be reminded of their responsibilities in a targeted or prioritised way; especially those who may be obstructing the flow of water by serious neglect or unthinking and inappropriate development.
85. Some areas of England, such as Gloucestershire, suffered much more than Nottinghamshire during last summer's floods. This would seem to beg the following questions: What if Nottinghamshire had been at the centre of the flooding event? What would have been the effect on the critical infrastructure of the county? The future may not bring a precise

recurrence of the 2007 floods. It may bring other more extreme weather events. It is not hard to imagine, for example, a severe winter storm which floods the M1, or other major roads, stranding thousands of motorists; or a coastal storm surge causing catastrophic flooding in Lincolnshire which results in requests for assistance to this Authority. Weak points in the critical infrastructure which could affect Nottinghamshire – especially in terms of transport and utilities - are worth carefully identifying and it would be useful for the emergency planning team to ensure that they are aware of them and develop appropriate responses. Weaknesses which fall outside the county's geographical boundary but affect the county should also be considered.

86. Ensuring that the critical infrastructure is robustly defended is worthy of further scrutiny. It is perhaps an issue that Overview and Scrutiny could commission a topic select committee to look at, when the work programme allows.
87. The Select Committee welcomes interim conclusion 26 of Sir Michael Pitt's report (page 54) which suggests that local authority scrutiny committees should review Surface Water Management Plans, and other linked plans, such as Local Development Frameworks and Community Risk Registers. An ongoing role for Scrutiny around flooding issues would be valuable. While this report was being finalised Sir Michael Pitt published his final report and recommendations. The recommendations are attached as Appendix B.

Draft Recommendations

88. It is recommended that:

Drainage

- Highways gullies are emptied more frequently. Preferably, a spring and autumn clean of gullies should take place.
- Residents should be notified in good time when gully cleansing is due to take place so that they can avoid parking over gully drainage grates
- Within the Authority's budgetary constraints, the funding and development of a capital programme of prioritised highway drainage improvements should be considered.

Watercourses and Internal Drainage Boards

- Internal Drainage Boards should more vigorously pursue, through the legal remedies that are open to them, riparian owners who do not properly fulfil their obligations
- Internal Drainage Boards should ensure that they robustly defend their critical assets from flooding (e.g. pumps) and invest in back-up measures wherever it is viable to do so.

Residents/this Authority/other authorities

- In association with relevant partners, this Authority should raise awareness about the severe problems that can be caused by disposing of cooking fat down drains
- This Authority should deploy temporary road signs in the approach to flooded areas warning of the severe “bow wave” effects that can result from large vehicles driving into floodwater at speed
- The owners of properties that are susceptible to flooding should put in place measures to improve the resilience of their property (e.g. floodgates and self closing airbricks) rather than rely on the delivery of sandbags
- Parish and District Councils should consider the strategic storage of sand bags, silicon granule bags or other alternatives as close as possible to where they are likely to be required
- Local Authorities (and other organisations) should recognise that existing community groups (e.g. Neighbourhood Watch) may provide a valuable resource or pool of potential volunteers for flood warden-type schemes
- This Authority in association with District Authorities, the Environment Agency, Severn Trent and the Internal Drainage Boards should produce a publication clearly setting out contact details and areas of responsibility relating to flooding and what support flooded homeowners can expect
- The preparation of emergency plans by Parish Councils be recognised as good practice; and therefore parishes who have not done so should consider producing a plan and circulating it to relevant agencies and authorities

Emergency Services

- The Police and Fire and Rescue Services should liaise more closely with residents who have in-depth local knowledge (e.g. representatives of the Parish Council)

Riparian Owners

- This Authority co-ordinate a thorough mapping of riparian ownership within the County; collating information held by other organisations, such as Districts and Parishes and commissioning research to fill gaps in knowledge with a view to producing a definitive document that is kept up to date
- Further to this mapping exercise, all riparian owners should be reminded of their responsibilities – and, as a priority riparian owners who have built structures that encroach into watercourses should be specifically approached and informed of the potentially catastrophic effect of restricting the flow of water during flash floods

Weak Points in the Critical Infrastructure

- Emergency Planning Officers carefully consider where the weak points in Nottinghamshire's critical infrastructure would be in the event that Nottinghamshire suffers the sort of massive pluvial flooding experienced by Gloucestershire last summer
- The Overview and Scrutiny Committee should consider a further scrutiny review of this authority's plans for civil contingencies, especially around weaknesses in the critical infrastructure which might lead to catastrophic long term failure of utilities and the transport network

Pitt Review

- Overview and Scrutiny Committee should receive a briefing on the implementation of the Pitt Review's recommendations in nine months and following that determine what further scrutiny of flooding issues should be incorporated into the future work programme

Recommendation

89. It is recommended that

the Flooding (Drainage and Watercourses) Select Committee agree the final report and recommendations.

Councillor Yvonne Davidson
Chair of the Flooding (Drainage and Watercourses) Select Committee

Background papers: nil.

APPENDIX A

Flooding (drainage and watercourses)

Parish Council Response

27 affected Parish Councils in Nottinghamshire detailed their experiences of the 2007 floods – their main concerns, the things that went well, the things to be improved and the level of partnership working that took place.

The main concern was with poor maintenance - to dykes, ditches, drains and culverts and the problems of contamination from raw sewage.

Only Bleasby, Caunton and Weston Parish Councils considered that anything went well and that was the response, both before and after the flooding, of District and County Councils, the Environment Agency and the Drainage Board.

The Parish Councils would like to see a faster and better-coordinated response to the flooding with better co-ordination and communications between the emergency services and the different authorities. Clarity over ownership of dykes, culverts and drains - and who has responsibility for maintenance and repair - would also be a welcome improvement.

Misterton Parish Council reported a 'top class service' from the County Council and Caunton commended Newark & Sherwood District Council for an 'excellent job'. However, Dunham on Trent considered the response of Severn Trent to have been too slow, while Rolleston Parishioners felt 'isolated and neglected' and considered that effective partnership working had not taken place.