



**3 October 2013**

**Agenda Item: 6**

## **REPORT OF SERVICE DIRECTOR, HIGHWAYS**

### **FLOOD RISK MANAGEMENT UPDATE OCTOBER 2013**

#### **Purpose of the Report**

1. To provide an update on the latest position in relation to the Council's duties and responsibilities under the Flood Risk Regulations (2009) and the Flood and Water Management Act (2010).
2. To request approval of the flood investigation approach, that being where the County Council is aware that five or more properties in a locality have been affected by internal flooding ie over the threshold (doorstep level) of the property.
3. To provide an update on flood investigations from 2012 and July 2013.

#### **Information and Advice**

4. Following the severe flooding during the summer of 2007, the government commissioned an independent review (the 'Pitt Review') which in 2008 recommended that local authorities should lead on the management of local flood risk, working in partnership with other organisations. Two key pieces of legislation have brought this forward; the Flood Risk Regulations (2009) which transpose the EU Floods Directive into UK Law and the Flood and Water Management Act (2010).
5. The Council is now a Lead Local Flood Authority (LLFA) and has new powers and statutory duties to manage and co-ordinate flooding from local sources. The County Council does this by working together with other organisations including the Environment Agency, who manage flooding from generally larger rivers (known as Main Rivers, such as the River Trent), Internal Drainage Boards managing low lying areas, District, Borough, Parish and Town Councils and infrastructure/ utility providers, such as Severn Trent Water and the Highways Agency. Partnership work is overseen by a joint Strategic Flood Risk Management Board with Nottingham City Council that meets every six months.
6. Local flood risk means flooding from surface water (overland runoff), groundwater and smaller watercourses (known as Ordinary Watercourses).

#### **General update**

7. There are both strategic and operational elements to the role of LLFA. A prioritised work plan has been produced to deliver the new responsibilities, and the Flood Risk Management Team is working proactively with both internal and external stakeholders to take this forward.

8. Strategically, the Council developed a Preliminary Flood Risk Assessment (PFRA) in 2011 in line with European legislation to screen local sources of flood risk across the County. This was approved by the Cabinet Member for Transport and Highways on the 20<sup>th</sup> September 2011 and subsequently by the Environment Agency. No further work under the Flood Risk Regulations is now required until the next PFRA in 2017. The Council are now developing a Local Flood Risk Management Strategy and seeking to influence the strategic plans of other organisations, such as Local Planning Authority Local Plans and Severn Trent Water business planning. On the 17<sup>th</sup> July 2013, the continued development of the Local Flood Risk Management Strategy was approved by Policy Committee.
9. Operationally, the Council investigates flooding incidents and is developing a flood risk management asset database. Additionally the Council also undertakes various land drainage activities, including consenting to works and enforcement on Ordinary Watercourses outside of Internal Drainage Board areas.
10. The County Council currently invests £600,000 a year on flood risk management schemes to protect communities and has successfully carried out a number of schemes throughout the County, often in partnership with other organisations, with an emphasis on a matched funding approach.
11. From April 2012, outside Internal Drainage Board areas, the County Council has had enhanced responsibilities for land drainage and for dealing with problems on Ordinary Watercourses and from April 2013 has had an annual land drainage budget of £100,000. Land and property owners do however, have a role in keeping watercourses flowing where they either own land or property next to a watercourse as Riparian Owners and in taking action to protect their own properties.
12. Once commenced, Schedule 3 of the Flood and Water Management Act will establish the Council as a Sustainable Drainage Systems Approving Body (SAB). The purpose of Sustainable Drainage Systems (SUDS) is to mimic natural drainage, significantly reduce surface water runoff and improve water quality. The SAB will be responsible for approving drainage systems in new developments and redevelopments before construction can start (in line with National Standards), and for adopting and maintaining SUDS serving more than one property. The right to connect surface water to the public sewer network will be conditional on SAB approval. The funding for long-term maintenance is still to be determined.
13. The Council has been actively engaging with Local Planning Authorities to understand the implications of the forthcoming legislation and the procedures and resources that will need to be put in place. The latest indication is that this will take place in April 2014, but the exact form this will take is unknown at this time and a report will be brought to Transport and Highways Committee when there is greater certainty.

## **Flooding investigations approach**

14. The County Council has a duty to investigate flooding incidents, where it deems it to be 'necessary or appropriate' and determine which organisation(s) have roles and responsibilities and what actions they are taking. The Flood and Water Management Act

does not give the Council responsibility for taking action to prevent flooding happening again and therefore managing expectations is a key element of how this is taken forward.

15. The County Council also provides a first response through its Highways and Emergency Planning teams to protect and assist local communities.
16. Based on experience from recent flood events, practice by other Lead Local Flood Authorities and the level of resource available within the County Council, it is recommended that formal flood investigations are undertaken where the County Council is aware that five or more properties in a locality have been affected by internal flooding (over the threshold [doorstep level] of the property).
17. The County Council will seek to undertake both flooding and less serious land drainage investigations on a prioritised basis, with regard to both the consequences and frequency of flooding.
18. The County Council will seek to complete investigations within a reasonably practical timescale which depends on available resources and input from local residents and businesses, their representatives, Risk Management Authorities (Local Authorities, the Environment Agency, Water Companies, Internal Drainage Boards and Highways Authorities) and other relevant organisations.

## **Flood investigations update**

19. Information on flooding in 2012 and 2013 has come from a number of sources including from the County Council Customer Service Centre, District Councils, Severn Trent Water, Internal Drainage Boards, Emergency Services, Parish and Town Councils and from our own highways staff. It is still possible that there may be properties that have been flooded in the County that we are not aware of, as there is sometimes reluctance from property owners to make a record that their property has been flooded.
20. This report does not identify individual properties that have been flooded, but makes reference to the area involved. In certain cases further investigation work is being carried out by a different Risk Management Authority such as the Environment Agency which is better placed to reduce flood risk at a specific location.
21. The Strategic Flood Risk Management Board for Nottingham and Nottinghamshire which is chaired by Cllr Calvert and where all Risk Management Authorities are represented, will help steer the investment of all authorities to reduce flood risk to these areas where feasible and where affordable solutions are available.

### **Flooding in July 2013**

22. On the early evening of Tuesday the 23rd of July the area around the north and east of Nottingham was affected by extremely intense rainfall, leading to flash flooding of a number of communities. A series of thunderstorms in the preceding 24 hours and the prolonged dry weather in the weeks leading up to the 23rd of July worsened the effects of the storm:

surface water storage systems were coping with earlier rainfall and the dry and baked ground promoted rapid surface water runoff.

23. A number of communities were affected in the County, with those most affected including East Bridgford, Calverton, Hucknall, Lowdham, Southwell, Thurgarton, areas of north east Greater Nottingham (Arnold, Carlton, Gedling and Mapperley) and north west Greater Nottingham (Eastwood, Kimberley, Newthorpe and Nuthall). It is estimated that over 400 properties were affected.
24. The majority of the flooding appears to have been related to surface water and Ordinary Watercourses, although there were complex interactions with Main Rivers and the sewer network.
25. The Flood Risk Management Team has been liaising extensively and meeting with Risk Management Authorities, Elected Members in both the County and District and Borough Councils, Parish and Town Councils, Community Flood Action Groups and people affected by flooding in the aftermath of the flood event to inform flooding investigations and support the multi-agency response to and recovery from the flooding event.
26. The County Council is supporting District and Borough Councils to undertake Community Engagement Events. At the time of writing, these have been planned for Lowdham, Southwell, Thurgarton and Greasley.
27. The County Council is developing a flood investigations template report that will set out what happened, who has flood risk management responsibilities and an action plan for all partners and local communities that sets out realistic and deliverable actions that can be taken to reduce the risk from a repeat flood event.
28. Detailed flood modelling studies are being commissioned for Hucknall (£20,000), Southwell (£25,000) and Thurgarton (£10,000 contribution to investigation led by Internal Drainage Board) to provide the Risk Management Authorities and local communities with a comprehensive and scientific understanding of the key mechanisms of flooding from all sources, how often flooding is likely to occur, what it will affect and feasible solutions to reduce the risk of flooding. These are due for completion in early 2014.
29. The County Council plans to work with other Risk Management Authorities, Parish and Town Councils, local community groups and Riparian Owners to produce Watercourse Management Plans that will set out how watercourses will be monitored and maintained where appropriate.
30. Areas where flood investigations are being undertaken include:
31. **East Bridgford** – severe flash flooding was experienced, damaging the highway, a right of way and property.
32. **Calverton** – severe flash flooding was experienced, exacerbated by agricultural land management practices.

33. **Hucknall** – extensive flash flooding was experienced largely from the Baker Lane Brook in the Town Centre area, an unnamed and largely culverted Ordinary Watercourse that passes through Titchfield Park and surface water.
34. **Lowdham** – extensive flash flooding was experienced from surface water overwhelming the capacity of the drainage network and trying to find its way into the Cocker Beck.
35. **Southwell** – extensive flash flooding was experienced from the Potwell Dyke, The Dumbles watercourse network (starting at Halam Road) and surface water.
36. **Thurgarton** – severe flash flooding can largely be attributed to the Thurgarton Beck, alongside surface water issues.
37. **Areas of north east Greater Nottingham (Arnold, Carlton, Gedling and Mapperley)** – severe flash flooding can largely be attributed to surface water overwhelming the capacity of the highways drainage and sewer network.
38. **Areas of north west Greater Nottingham (Eastwood, Kimberley, Newthorpe and Nuthall)** – severe flash flooding can largely be attributed to surface water overwhelming the capacity of the highways drainage and sewer network.

#### Flooding in 2012

39. Investigations into the flooding that occurred in 2012 were reported to the Transport and Highways Committee on the 10th of January 2013. The threshold of internal property flooding to five or more properties has now been applied to the 2012 flooding information, which has reduced the number of locations requiring a formal flood investigation. A detailed flood study is being commissioned for Cropwell Butler to support these investigations.
40. The County Council will continue to work with the relevant Risk Management Authorities to support all local communities across the County where flooding has been experienced as far as possible given available resources.

#### Conclusions

41. The purpose of the investigations is to identify those Risk Management Authorities who are best placed to resolve flooding issues at a particular location and to try and develop schemes in partnership to reduce flood risk to affected communities where these can be proved to be a feasible solution.
42. It is suggested that a further progress report is brought to this committee in 6 months to include an update of the findings from the investigations listed together with information on schemes that are developed where these have been proved to be feasible.

#### Statutory and Policy Implications

43. The County Council has a number of new statutory duties and powers under the Flood and Water Management Act (2010) and Flood Risk Regulations (2009). Flooding investigations are legally required under the Flood and Water Management Act.

44. This report has been compiled after consideration of implications in respect of finance, the public sector equality duty, human resources, crime and disorder, human rights, the safeguarding of children, sustainability and the environment and those using the service and where such implications are material they are described below. Appropriate consultation has been undertaken and advice sought on these issues as required.

### **Financial Implications**

45. The costs of these studies will be contained within existing budgets.

### **RECOMMENDATION/S**

It is RECOMMENDED that Committee:

1. approve the approach to flooding investigations;
2. notes the update on flood risk management.

**Andrew Warrington**  
**Service Director Highways**

### **For any enquiries about this report please contact:**

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### **Constitutional Comments (SHB 11/09/13)**

Committee have power to approve the Recommendation.

### **Financial Comments (TMR 09/09/2013)**

The financial implications are set out in paragraph 45 of the report.

### **Background Papers**

None

### **Electoral Division(s) and Member(s) Affected**

All