



**FINAL REPORT OF THE SCRUTINY  
REVIEW PANEL ON FLOODING**



**SCRUTINY COMMISSION – 9 JUNE 2010**

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FLOODING**

**REPORT OF THE SCRUTINY REVIEW PANEL**

**Introduction**

1. This report sets out the conclusions and recommendations arising from the Scrutiny Review Panel's detailed consideration of the implications of the Flood and Water Management Bill and the associated issues.

**Scope of the Review**

2. The Scrutiny Commissioners on 24 August 2009 appointed a Scrutiny Review Panel to investigate how the County Council together with other agencies proposed to respond to the proposals likely to emerge in the Flood and Water Management Bill and the implications of any proposed new arrangements for communities prone to flooding.

**Membership of the Panel**

3. The following members were appointed to serve on the Panel:



Mr. S. L. Bray



Mr. B. Garner



Mr. T. Gillard



Dr. S. Hill



Mr. G. Jones



Mr. K. P. Lynch



Mrs. R. Page  
(Chairman)

## **Conduct of the Review**

4. The Panel met on six occasions between 13 November 2009 and 28 April 2010. Throughout the course of the Review the Panel considered:
  - (i) the key recommendations of the Pitt Review and an update on the proposals for the draft Flood and Water Management Bill;
  - (ii) the role of the newly established multi-agency Flood Risk Management Board;
  - (iii) a presentation on flood contingency planning, the work of Community Flood Wardens and Regional Improvement and Efficiency Partnership funding;
  - (iv) case studies of flooding affecting areas of the County over the past several years;
  - (v) the role that strategic planning can play in mitigating flood risk; and
  - (vi) The likely impact of climate change and the need for adaptation.
5. The Panel is thankful to the following witnesses for providing the above listed evidence:

### The Environment Agency [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

Tim Andrews	Technical Specialist - Development & Flood Risk
Paul Lockhart	Inland Strategic Overview Implementation Manager (Flood Risk Management)

### The National Flood Forum [www.floodforum.org.uk](http://www.floodforum.org.uk)

Mary Dhonau	Chief Executive
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### Severn Trent Water [www.stwater.co.uk](http://www.stwater.co.uk)

Margaret Burrup	Senior Flooding Manager, Severn Trent Water
Phil Gelder	Sewerage Asset Manager
David Terry	Senior Modeller

6. The Panel was supported in its review by the following persons and is thankful to them for their contributions to the Review:-

Julian Haywood	Head of Business Support
Matthew Lugg	Director of Environment and Transport
Mo Seedat	Committee Officer
Ian Smith	Project Officer - Leicester, Leicestershire and Rutland Local Resilience Forum
Andrew Warrington	Group Manager, Northern Highways
Sam Weston	Committee Officer
Peter Williams	Head of Environmental Management
Rebecca Hart	Climate Adaptation Project Officer

### **Context of the Review**

#### **The Pitt Review**

7. The 2007, widespread flooding affected many parts of the UK. Sir Michael Pitt was subsequently asked by ministers to conduct an independent review of the emergency and assess what happened and what could be done differently in the future. Arising from this Review, a number of key recommendations were put forward which provided clearly defined roles for managing flood risk, of which local authorities were placed as the lead body.

#### **The Flood and Water Management Act**

8. On 21 April 2009, the Government produced the draft Flood and Water Management Bill which aimed to give legislative effect to the recommendations of the Pitt Review.
9. The Bill became The Flood and Water Management Act 2010 when it was passed through parliament and received Royal Assent on 8 April 2010.
10. Principally, the Act aimed to:
- Deliver improved security, service and sustainability for people and their communities;
  - Establish who was responsible for managing flood risk;
  - Protect essential water supplies;
  - Modernise the law for managing flood risk and reservoir safety;
  - Encourage more sustainable forms of drainage;
  - Enable water companies to control more non-essential uses of water during droughts;
  - Make it easier to resolve improper connections to sewers.

11. The provisions of the Act are wide-ranging and include:

- New statutory responsibilities for managing flood risk including national strategies and guidance on managing flood risk in England and Wales. Unitary and county councils will bring together the relevant agencies, who will have a duty to cooperate, to develop local strategies for managing local flood risk;
- Protection of assets which help manage flood risk – the Environment Agency, local authorities and internal drainage boards will be able to ensure that private assets which help manage the risks of floods cannot be altered without permission;
- New powers to carry out environmental works – the Environment Agency, local authorities and internal drainage boards will be able to manage water levels to deliver leisure, habitat and other environmental benefits;
- Sustainable drainage systems for all new developments will need to be in line with new national standards to help manage and reduce the flow of surface water into the sewerage system;
- New sewer standards will mean all sewers will be built to agreed standards in future so that they are adopted and maintained by the relevant sewerage company;
- Existing reservoir safety regulations place the legal responsibility for the safety of reservoirs on the owners/operators (undertakers) and all sites falling under the Reservoirs Act must be kept under supervision by qualified engineers and periodically inspected. The Water Act 2003 gave the Environment Agency the role of enforcement authority with an overview of reservoir safety. The public will be further protected by an extension to current reservoir safety regulations, requiring undertakers to provide inundation maps to emergency responders and 'off-site' emergency plans to be developed for those reservoirs deemed to be high risk. That risk assessment was completed in February 2010 and concluded that there are no high-risk reservoirs in Leicester, Leicestershire or Rutland. However, we will create and maintain a 'generic' off-site emergency plan that can be activated to respond to an emergency at any site in the city, county or Rutland;
- Protection against unaffordable charges for surface water drainage for community groups such as churches and scout groups. Future water company charges can include social tariffs for those who would otherwise face difficulty meeting their bills;
- There will be wider powers for water companies to control non-essential domestic uses of water in times of drought;

- There will be new powers to reduce the level of bad debt, new arrangements for managing very risky infrastructure projects which could be a threat to the ability of the water company to provide its services, and updated arrangements for administration of water companies should they get into difficulties.
12. The County Council's Cabinet agreed a response to the draft Bill at its meeting on 28 July 2009. The Cabinet also agreed to establish a multi-agency strategic Flood Risk Management Board (see paragraphs 15 to 25). A copy of the Cabinet's response to the Bill can be found at the following link:

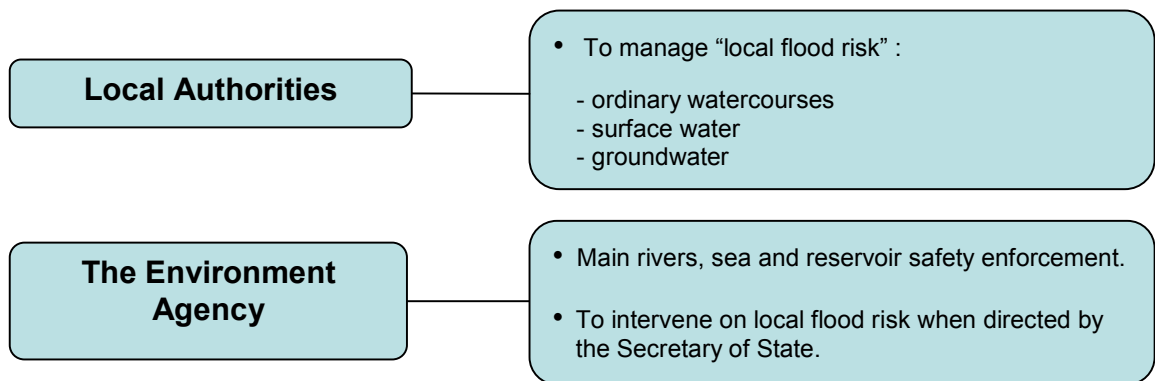
[http://politics.leics.gov.uk/Published/C00000135/M00002315/AI00022905/\\$NDraftwaterandFloodBill.doc.pdf](http://politics.leics.gov.uk/Published/C00000135/M00002315/AI00022905/$NDraftwaterandFloodBill.doc.pdf)

### **Findings of the Panel**

13. The Flood and Water Management Bill was presented to Parliament on 19 November 2009 and its main principles received widespread support.
14. The Panel's report is broadly divided into the following five sections with its recommendations included therein and summarised at the end of the document:
- Leadership and the Flood Risk Management Board;
  - Funding;
  - Climate Change;
  - Planning and Design;
  - Communication.

## **LEADERSHIP AND THE FLOOD RISK MANAGEMENT BOARD**

15. The Flood and Water Management Act proposed that county and unitary authorities should positively tackle local problems of flooding by working with all relevant parties, establishing ownership and legal responsibility. It was further proposed that all relevant organisations should have a duty to share information and cooperate with county and unitary authorities and the Environment Agency in order to facilitate the management of flood risk.
16. Broadly, the key provisions of the Act are as follows:

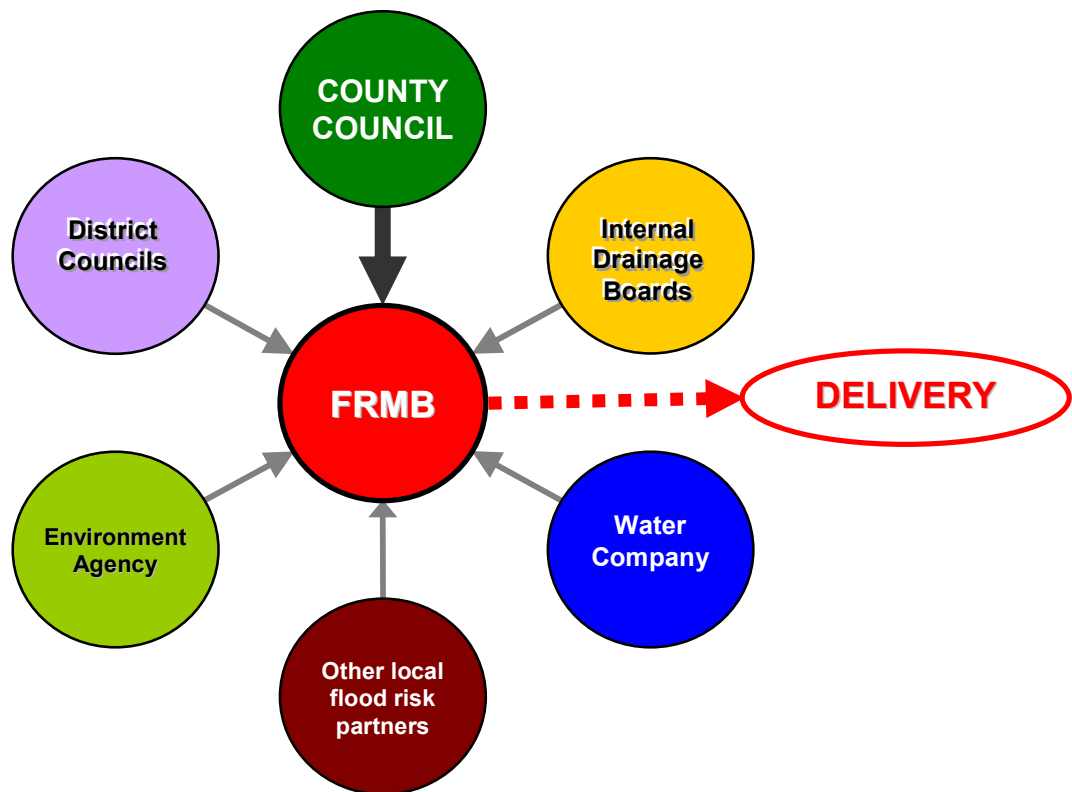


17. The work undertaken by the Leicester, Leicestershire and Rutland Local Resilience Forum (LRF) is consistent with this approach and provides communication and signposting to those considered to be 'at risk' of a flooding situation.
18. As lead body, it would be essential that the County Council brought together the key partners and agencies in order that a co-ordinated approach to flood risk could progress.
19. The Panel is pleased to note the formation of a new strategic multi-agency Flood Risk Management Board (FRMB), a strategic body on which the County Council will lead on flood risk issues and will bring the County Council together with the following key partners:
- Leicester City Council;
  - Rutland County Council
  - District Councils;
  - The Environment Agency;
  - Severn Trent Water\*

\*Around 95% of the County is covered by Severn Trent Water with the remaining 5% covered by Anglian Water. Severn Trent Water have agreed to represent both companies on the Board.



20. It is hoped that by bringing together the relevant key partners, the necessary infrastructure will then be in place to enable a constructive data and communication exchange. Specifically, flood risk data will be shared, flood risk maps and plans will be prepared, flood risk assets mapped in an effort to manage surface water. The Board will co-ordinate work undertaken across a number of already established groups as illustrated in the diagram below:



21. The Board will co-ordinate current approaches to surface water and flood management through the existing LRF work, the existing local planning arrangements associated with development and also management of the surface water drainage system.
22. At present, the Highways Agency is not part of the FRMB. It is envisaged that it will not be a full-time member of the Board, but that the County Council will seek to involve them in discussions when required to do so.
23. The Panel is pleased to note that both the Environment Agency and Severn Trent were happy that successful joint working had taken place with the County Council prior to the establishment of the FRMB and hopes that this will be a solid basis on which to build and share information with key partners through the new arrangements.

24. The Panel believes that in view of the formation of the FRMB, the County Council is currently well placed to respond to the new legislation arising from the Flood and Water Management Act. Its establishment of a multi-agency body to bring together the key partners will enable an effective dialogue to take place with the aim of ensuring that flood risk is fully taken account of within the planning process.
25. The County Council was approached by a Project Officer late in April 2010 about its possible involvement in a new 'OnTrent' environmental partnership project, of which its aim was to concentrate on biodiversity related land management issues along the Trent Valley, but also included consideration of flood management issues. A meeting attended by officers from the Local Resilience Forum, the Stepping Stones Project and the Environmental Action Team took place with the Project Officer on 27 April and in principle support was given to the Council's involvement in the project. Further details can be found at: <http://www.ontrent.org.uk/>.

**- The Panel supports the formation of the strategic multi-agency Flood Risk Management Board on which the County Council will act as the lead body in managing flood risk;**

## **FUNDING**

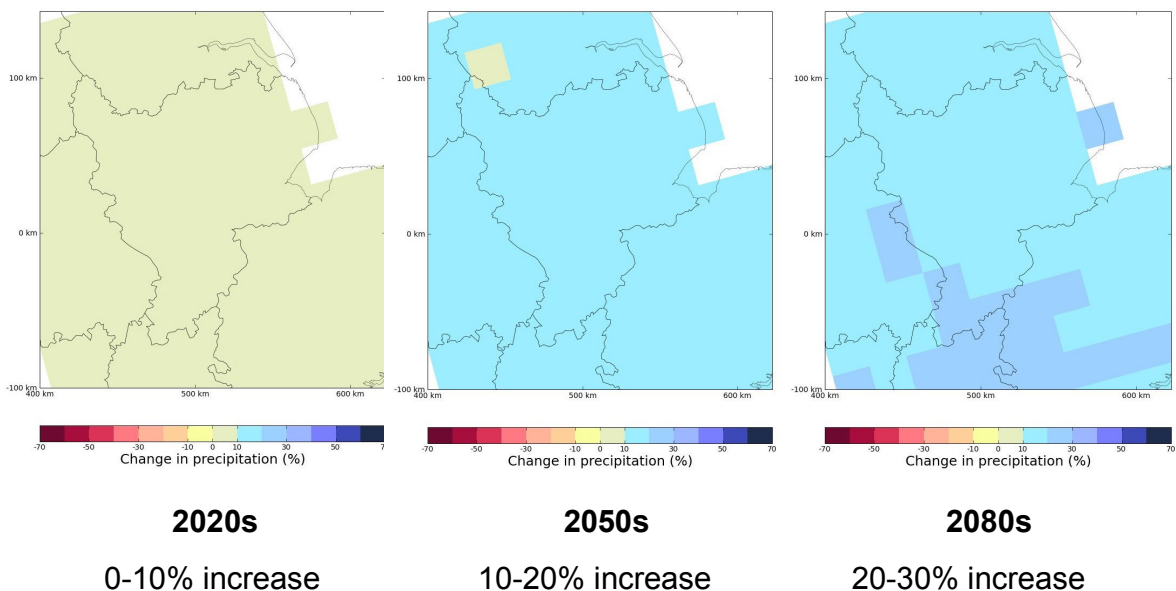
26. The Authority received a grant of £190,000 from the Regional Improvement and Efficiency Partnership (RIEP) to assist in managing flood risk. This funding, which runs for three years (2009-12), has been managed by the LRF, the body responsible for creating an overarching flood plan for the County, developing the role of Community Wardens and communicating flood issues to communities.
27. The grant has funded two posts within the LRF: a Flood Project Manager and a Community Volunteer Coordinator, both of which are seconded to the County Council. The Community Volunteer Coordinator post has recently been appointed to and will be essential in managing the work and training of Community Flood Wardens, of which there were currently over 110 based across the County in a voluntary capacity. Wardens are required to play an 'on the ground' role in communicating flood risk information to the public and signposting them to the appropriate agency if they had issues (see paragraphs 77 and 78).
28. The grant has part-funded the purchase of over 6,500 'sandless' sandbags for use by 'at risk' communities in flooding situations (see page 21). These have already been distributed to the 9 relevant local authorities, with 2,000 being held in two County Council locations for rapid deployment to affected areas.
29. The LRF has been also been able to purchase the following with the RIEP funding:
  - Necessary IT equipment for the Community Volunteer Coordinator post;
  - Flood fair communications equipment;
  - Advertising space at the Leicester Royal Infirmary;
  - Flood information and publicity materials.
30. The Panel is concerned to note that RIEP funding for flooding work will only be provided up until September 2011. It was therefore clear that the County Council would have to budget for this work after that time. The Environment and Transport Department has since included a growth item of £250,000 from 2010/11 to undertake adaptations to the highways to address the increased levels of flooding on the County's roads. This proposal was agreed at the County Council's Budget meeting on 24 February 2010.

- **The Panel is concerned that the loss of RIEP funding to assist in managing flood risk after September 2011 may have a severe knock-on effect on the Authority's continuing ability to adequately resource such work, particularly given the current financial climate;**
- **Given the Authority's position as lead body in managing flood risk, the Panel, whilst recognising the financial pressures, hopes that the necessary resources will be re-directed from Government to carry out this role effectively.**

## **CLIMATE CHANGE**

31. The increasing threat of climate change means that extreme weather events are likely to happen more frequently and there will be an increasing need for authorities and the public to adapt and prepare for these conditions.
32. The Government's recently released climate change projections<sup>1</sup> are particularly bleak, with annual mean precipitation expected to increase during the winter months over the next 70 years as indicated in the diagrams below:

### **Average Increase in Precipitation (%)**



33. There would likely be a number of direct consequences from an increase in annual winter average precipitation. A principal concern is that most highway drains are around 100 years old and little is currently known about their location, connectivity, capacity and condition. There is therefore a level of uncertainty over how they will be able to cope with the increased flood risk associated with climate change. Currently, roadside gullies are routinely emptied once a year, though they tended to take on average around two years to fill with detritus. Given the implications of climate change, it is expected that this situation is likely to change over time and vigilance will therefore be needed during the winter months in areas considered to be 'at risk'.
34. The Government's projections also highlight the likelihood that summer precipitation will decrease dramatically over the next 70 years. Going forward, this

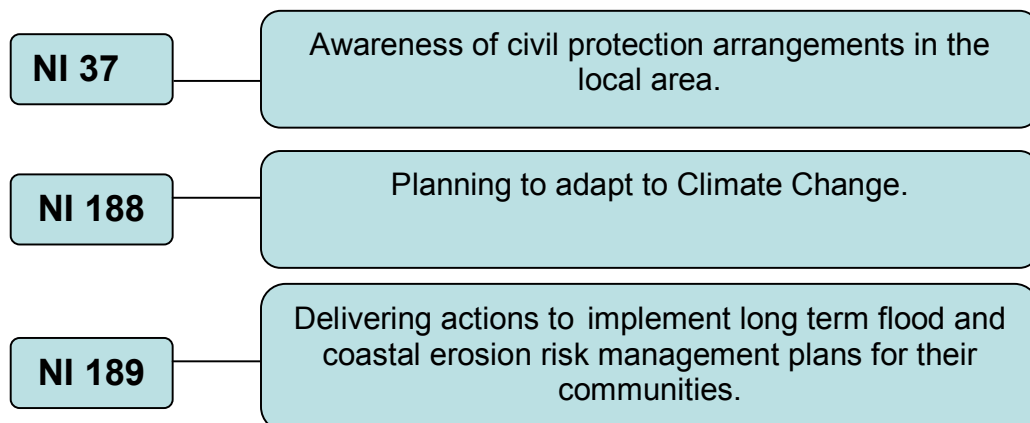
<sup>1</sup> <http://ukclimateprojections.defra.gov.uk/content/view/515/499/>

will mean that rainfall will need to be stored more effectively over the winter for use during the summer months when water is at a premium (the 'Planning and Design' covers this issue in more detail).

35. The County Council, together with two neighbouring authorities, has employed an external consultant to carry out a study of the way in which climate change affects highways issues. The study will also identify a method for applying risk and probability to issues such as flooding.
36. Another significant risk factor is the effect of floods on bridges. It is clear that the Authority will have to learn lessons from the Cumbria floods in 2009, which had led to the destruction of around 20 road bridges and the isolation of communities. Work is currently being carried out to identify those bridges that are likely to be most at risk.

### **National Indicators (NIs)**

37. As part of the national performance framework for local government there are currently three national performance indicators concerned with flood risk which form part of the Local Area Agreement (LAA):



### **NI 37 – “Awareness of Civil protection Arrangements in the local area”**

38. NI 37 measures public perception and the awareness of what they should do in the event of an emergency, and what they can expect from the responding agencies and organisations. This in turn measures the effectiveness of local authority communications and initiatives to raise awareness and develop community resilience.
39. In line with most local authorities, Leicester, Leicestershire and Rutland received an extremely low score on this indicator in the 'Place Survey' of local residents highlighting the need to focus more attention on communicating relevant information to the public.

40. The coordination and management of activities related to communicating with the public will be via the LRF (as discussed in the 'Communication' section of this report). NI 37 submissions will be managed by the LRF's Flood Project Officer and Volunteer Community Flood Wardens will be on hand to support public awareness initiatives. RIEP funding is also supporting the purchase of mobile exhibition equipment, to be used in multi-agency displays at flood fairs and other local and community events.

#### Progress and Next Steps

41. The Panel is pleased to note the following achievements in relation to NI 37:
- Employment of a Community Volunteer Coordinator (in post since January 2010);
  - Space purchased on four Leicester Royal Infirmary information boards to support awareness campaigns for the next two years. These information boards are seen by around 60,000 people every week;
  - The procurement of exhibition equipment.
42. Whilst these achievements are to be welcomed, the Panel is keen to see further development and progress against NI 37 via the following measures:
- Develop a program of events, and ensure multi-agency support;
  - Develop and implement co-ordinated publicity campaigns;
  - Continue to develop and train Community Wardens;
  - Attend Community Forums and other community based meetings.

#### NI 188 – “Planning to adapt to Climate Change”

43. NI 188 aims to ensure local authorities are sufficiently prepared to manage risks to service delivery, the public, local communities, local infrastructure, businesses and the natural environment from a changing climate, and to make the most of new opportunities.
44. The impacts might include increases in flooding, temperature, drought and extreme weather events. These could create risks and opportunities such as: impacts to transport infrastructure from melting roads or buckling rails, increases in tourism, increased damage to buildings from storms, impacts on local ecosystems and biodiversity, scope to grow new crops, changing patterns of disease, impacts on planning and the local economy and public health.
45. Since July 2008, the nine city and county councils in the East Midlands have been engaged in an innovative project that aims to record the impacts of recent extreme weather on public services and assess the future risks to council services arising from unavoidable climate change. A central government official recently said that

“East Midlands’ authorities are among the best performing councils on climate change adaptation in the country”.

46. The process has followed the self assessment guidance set out for NI 188: Planning to adapt to climate change. The work for achieving level 2 is divided into three main tasks:
  - (a) Comprehensive risk assessment of the impacts from climate change on service delivery in the County Council;
  - (b) Comprehensive risk assessment of the impacts from climate change on service delivery in the Leicestershire district and borough councils;
  - (c) Comprehensive risk assessment of the effects from climate change on Local Strategic Partnership objectives in Leicestershire including the district/borough strategies.
47. The Local Area Agreement included NI 188 under which there are targets to achieve Level 1 in 2008/09 (this has been achieved), Level 2 in 2009/10 (also achieved) and Level 3 in 2010/11. All local authority partners in Leicestershire Together are required to achieve these targets together, or otherwise each partner will be rated equal to the score of the lowest achieving partner. The Local Climate Impact Profile Programme and Planning to Adapt Project has therefore been developed and implemented jointly in Leicestershire (and this model is used across the whole of the East Midlands).
48. On 10 March 2009 the Cabinet noted a joint report of the then Directors of Community Services and Highways Transportation and Waste Management on the implications of the LCLIP report prepared for Leicestershire and its Districts and the report prepared by the 3 Counties Alliance Partnership (Leicestershire, Derbyshire and Nottinghamshire County Councils and Scott Wilson) on the subject of adaptation and the Highway Network Policies and Standards. This study has been recognised as an example of national best practice through an Institution of Civil Engineers EMMA award, and it is being widely shared through a series of national conferences. This work brought all authorities in Leicestershire to Level 1 in March 2009, and the Highways Service to Level 3.
49. The NI 188 project is being managed by the Environmental Action Team in the Environment and Transport Department. Close links have been forged with the Resilience Planning Group, Business Continuity Manager and Emergency Planning and Flood Risk Officers. Adapting to future climate change may have resource implications but planned expenditure is likely to reduce the impact on routine operations and provide some mitigation for extreme events.
50. Resources are available from the LAA funding to complete Level 3 including the preparation of the Adaptation Action Plan.

### Progress and Next Steps

51. To take advantage of the East Midlands regional approach towards NI 188, local authority services were divided between the top tier authorities in the East Midlands. Each authority completed risk assessments for specific service areas. As part of this regional approach Leicestershire agreed that its initial service areas of focus would be: Highways Fleet / Public Transport and Transport Planning, for which detailed risk assessments were completed with service managers.
52. A regional workshop was held on 9 December 2009 to quality assure the detailed risk assessments received from other authorities in the region and to ensure they reflect the operations in Leicestershire. Meetings were held with service managers to review and amend detailed risk assessments provided by other authorities to make them relevant for Leicestershire.
53. Risk assessments for district functions were distributed to all districts within Leicestershire on 8 January 2010, in order for them to review and amend risks as appropriate.
54. A desk based study has been completed for the comprehensive risk assessment of the effects from climate change on LSP objectives in Leicestershire including the district/borough strategies. A sub-regional workshop for LSP members was held on 10 February 2010 to raise awareness of the climate change issue by highlighting high risks identified in the assessments of LSP objectives; and to encourage LSP members to complete similar risk assessments for service delivery for their own organisations.
55. As a result of a report to Cabinet in March 2010, the Panel is pleased to note that Leicestershire has now reached level 2.
56. The regional project team are beginning to develop a work plan for the next phase, which will include the development of Leicestershire County Council's Adaptation Action Plan, required in order to achieve Level 3 by 2011.

### NI 189 – “Flood and Coastal Erosion Management”

57. NI 189 is based upon the Environment Agency's Catchment Flood Management Plans. These are long-term plans for the management of major rivers and watercourses in England and Wales.
58. Each local authority is required to submit a return on an annual basis, via the upper tier authority, to report all work and activities related to flood risk management completed to date.
59. Until the end of year 1 (March 2009), there was a lack of awareness of the existence of this National Indicator that resulted in the EA requesting very basic submissions at the last minute. During this current year (April 2009 – March 2010)



there has been little communication or guidance on NI 189 coming from the Environment Agency, which the Panel finds disappointing.

60. The LAA did not include NI 189 as a key indicator. However, as the upper tier authority, and now the 'Lead Flood Risk Authority', the County Council has a responsibility to ensure that all district councils submit returns to the Environment Agency/DEFRA.

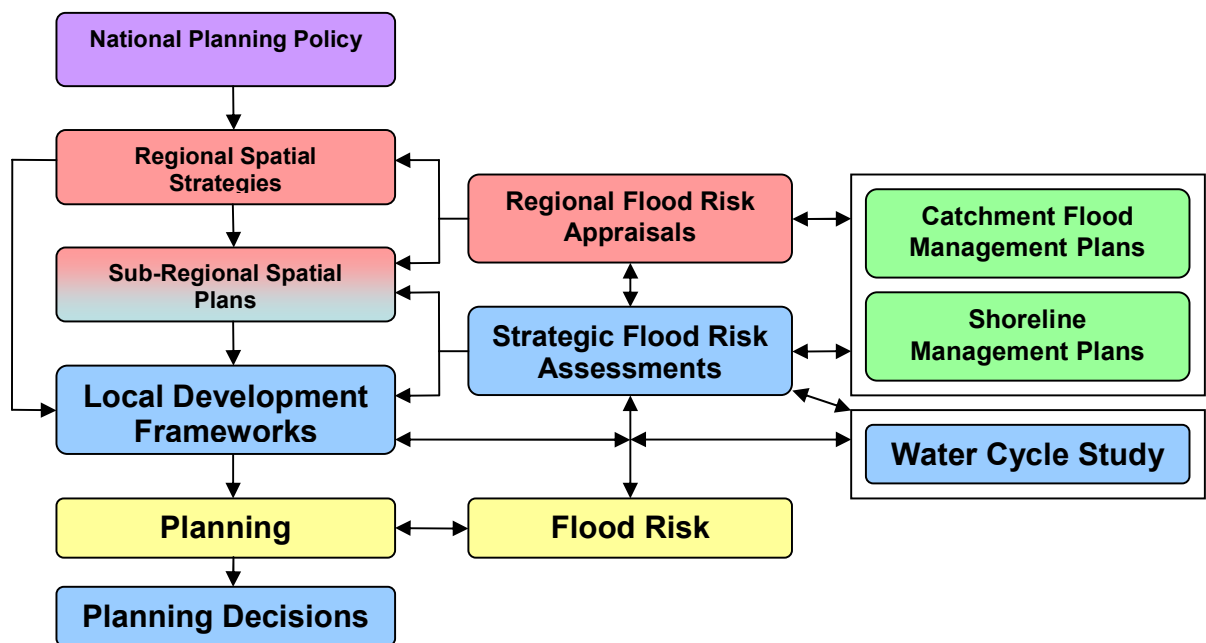
#### Progress and Next Steps

61. Working in partnership with the District and City Councils and Rutland County Council, the Panel are pleased to note that the County Council has completed the NI 189 Year 2 submissions on time.
62. Work and initiatives completed that will be included in the County Council's NI 189 submissions include:-
- The formation of the Flood Risk Management Board;
  - Management and administration of the Flood Working Group;
  - Completion of the Multi-agency Flood Plan;
  - Completion of district and community flood plans;
  - Community Volunteer Coordinator post;
  - Recruitment and training of Community Flood Wardens;
  - The purchase of 'self-inflating' sandbags;
  - Support of district Flood Fairs' and Flood Planning Groups;
  - Developing multi-agency partnership working;
  - Warning and informing the public via community flood wardens and the media.
63. The Panel is particularly keen to note the planned activities for year 3, which include:-
- The formation of a Drainage Engineers/Surface Water Management Group;
  - Supporting the development of Surface Water Management Plans;
  - Ensuring compliance with the Flood and Water Management Act;
  - Promoting the awareness and adoption of SuDS;
  - Further development of Multi-agency partnership working;
  - Further development of the Community Flood Warden initiative;
  - Supporting local Flood Fairs.

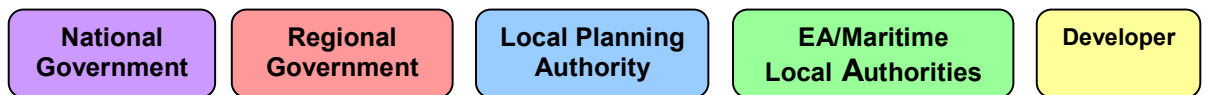
- **Whilst it is clear that much work has been undertaken by the County Council and its partners to mitigate and adapt to the effects of climate change, the Panel wishes to stress the importance of maintaining impetus to enable continuous improvement in this area and is therefore pleased to note:**
  - **achievement of level 2 and the plans to develop a future work programme (including the development of an Adaptation Action Plan) as part of the regional project in order for Leicestershire to reach Level 3 of NI 188;**
  - **progress against NI 189 and the actions in relation to Emergency Planning, in conjunction with our multi-agency partners;**
  - **the next steps for delivery of actions against NI 37.**

**PLANNING AND DESIGN**

64. Planning and the implementation of innovative design solutions within new and existing developments can have a significant impact on flood risk. The Government’s National Planning Policy Statement 25 aims to ensure that flood risk is taken into account at all stages of the planning process to avoid inappropriate development in at risk areas. It also aims, where appropriate, to encourage the direction of development away from areas at the most risk and encourage joint working between local authorities, the Environment Agency and developers in order to achieve this.
65. The diagram below illustrates the way in which planning policy is implemented and where flood risk is taken account of:



**Legend:** Responsibilities are indicated using colour-coding, as follows.

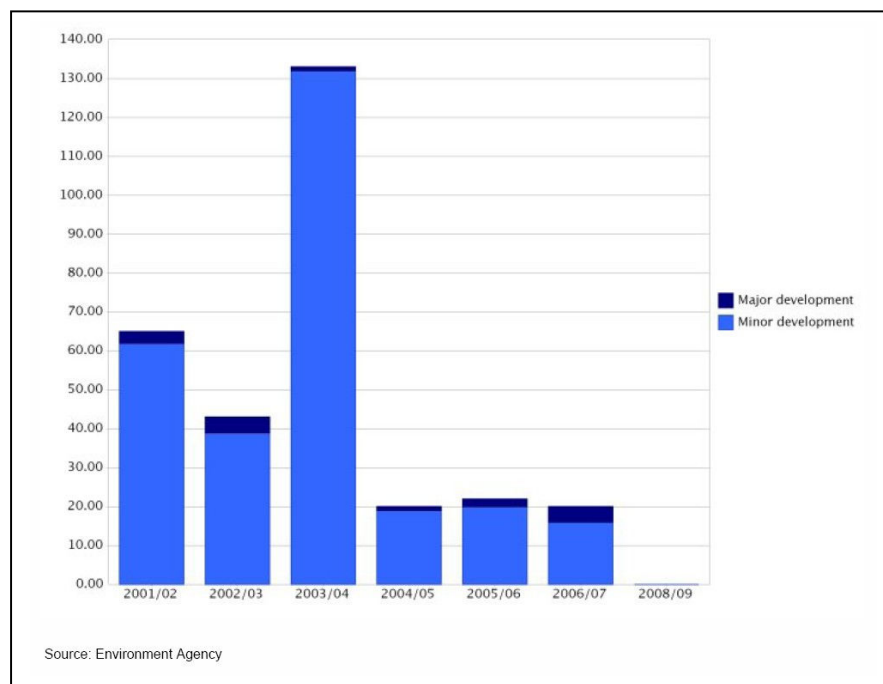


66. The regional planning process also sets out the following requirements for Local Development Frameworks which all have a part to play in minimising flood risk:
- Policy 28 – Environment and Green Infrastructure;
  - Policy 29 – Priorities for Enhancing the Region’s Biodiversity;
  - Policy 30 – Priorities for managing and increasing Woodland Cover
  - Policy 32 – A Regional Approach to Water Resources and Water Quality;
  - Policy 33 – Strategic River Corridors;

- Policy 35 – A Regional Approach to Managing Flood Risk.

67. The stringent national and regional planning processes have had a significant effect on ensuring a significant reduction in the number of major developments approved contrary to the recommendations of the Environment Agency, as indicated in the diagram below:

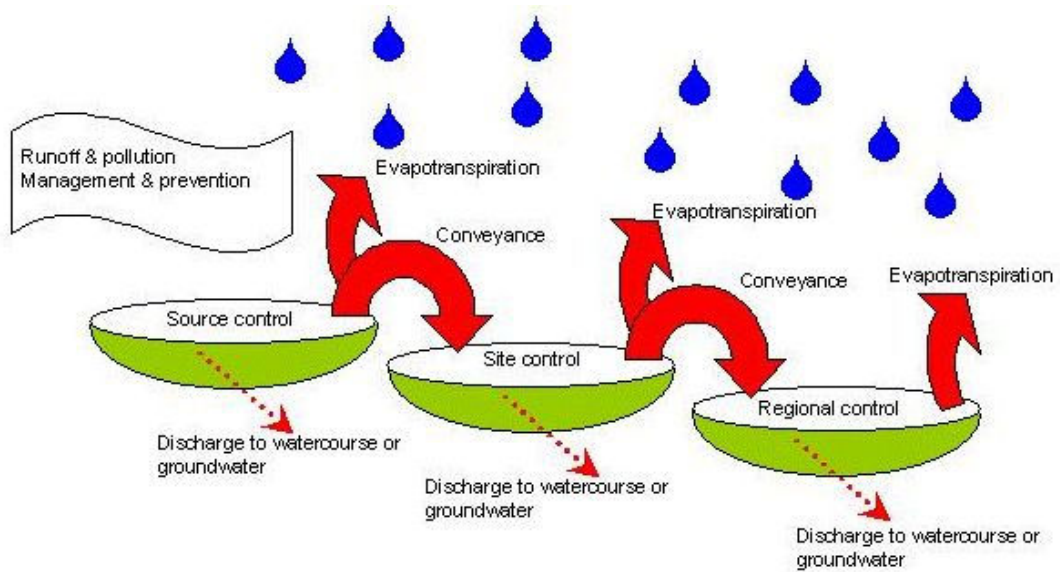
**Number of Major and Minor Housing Developments Built**



68. The Panel believes that positive planning has a crucial role to play in delivering sustainable developments. Under Planning Policy Statement 25, developers are now required to deliver more innovative flood management solutions. There are now a number of ways that innovative design solutions can be built into developments seamlessly. A number of these are outlined below.

#### Sustainable Drainage Systems (SuDS)

69. SuDS are a modern drainage solution that allow surface water to be stored effectively, reduce flood-risk and prevent water pollution and the Panel is of the view that there is considerable merit in their implementation within modern developments. Their design can be variable depending on the development, but the basic principle is as set out below:



The new Enderby Park and Ride site (left). Workers are laying water storage crates. These crates form a chamber where rainwater that passes through the block paving and gravel layers is collected, so it can then flow into the nearby balancing ponds and gradually soak into the ground.

The basic systems that provide sustainable drainage and the way that these are now able to be subtly employed within a modern development (right).



70. Given the indications from the Government's climate change projections, it is clear that, the retention of water will be increasingly important. Rain water from flooding must in future be treated as a resource rather than a hindrance. SuDS are able to play a vital role in containing surface water until a storm passes.
71. Under the new legislation arising from the Flood and Water Management Act, the County Council will be responsible for the adoption of SuDS within new developments. There would also be a requirement for the retro-fitting of SuDS within the existing highway network.
72. The Panel is encouraged that the County Council will in future be the SuDS approving body and it believes that it will be necessary for effective and collaborative working to take place with the district councils to ensure that developers are innovative in their approach to incorporating effective surface water run-off solutions.

Other Design options

73. Outlined below are a number of other modern design options that minimise flood risk:



A modern development in Leicester which incorporates SuDS which runs throughout the site and discharges water to a nearby brook (left) and which also forms part of the Green Infrastructure of the development.

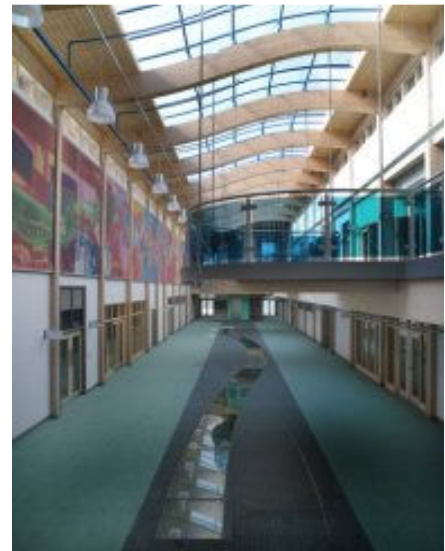
Permeable paving (right) is a key technology behind the principle of SuDS. It stores storm water at source, rather than overloading the sewerage system and treatment works.





This example (left) is a 'green roof', the concept of which is to create an attractive roof garden for planting and wildlife, which has the dual benefit of drastically reducing rainwater run-off.

Many new County Council buildings are already incorporating innovative design features, such as rainwater harvesting at Wigston Bushloe School (right). This feature collects rainwater and channels it into a storage unit. This water is then used for the flushing of toilets.



The Authority has recently purchased 6,500 'sandless' sandbags (left). These represent a significant improvement on the traditional sandbag and absorb water to full capacity in as little as three minutes and effectively keep small amounts of flood water at bay.

74. The water authority also has a role to play in the management of surface water flooding in ensuring that water systems are not overloaded by development. The Panel is pleased to note that Severn Trent Water is fully supportive of the use of

SuDS within developments, but is concerned that water companies are not currently a statutory consultee on planning applications and are only able to *advise* on where they consider there is likely to be capacity issues within the system – ultimately, the decision on where to connect presently lies with the developer. Given that water authorities have the expertise on the water and sewerage networks and are best equipped to advise developers accordingly, the Panel believes that they should be involved in the assessment of SuDS systems and planning applications.

75. The Panel recognises the importance of ensuring that flood risk is properly taken into account by planning authorities in Leicestershire when considering proposals for development both through the preparation of Local Development Frameworks and in dealing with planning applications. Planning authorities must be reminded of their obligation under national planning policy objectives (set out in Planning Policy Statement 25 - Development and Flood Risk and its Practice Guidance) their statutory duties to take into account flood risk in the planning process and to ensure that developers adhere to the requirements of the validation check list which gives guidance on the need to deal with flood risk issues.

- **The Panel feels that the Council must work effectively with district councils as planning bodies to ensure that, as part of their statutory duties, flood risk is adequately taken account of and addressed as part of the planning process;**
- **That, as part of the approach outlined in (e) above, it be ensured that developers adhere to the requirements of the validation check list which highlights the need to address flood risk;**
- **The Panel believes that water companies, as experts on the water and sewerage systems, should:**
  - **be statutory consultees on planning applications; and**
  - **be represented on the SuDS approving body with the County Council.**



## COMMUNICATION

76. Clear communication is essential in making the public, particularly those considered at the most risk of flooding, aware of the issues and where they can receive assistance in the event of a flood and be aware of important mitigation measures that can be taken to limit impact. The LRF carries out much of the work in this area on behalf of the County Council via the Community Flood Warden network, which provides 'on the ground' advice to the public.
77. It is important that both parish and district councils are engaged in flood risk and its impact, particularly through the planning process. The LRF has carried out significant work in this area, holding meetings with parish councils and community groups to publicise the issues associated with flood risk. As discussed in paragraph 26, the LRF has also used RIEP funding to purchase flood fair communications equipment, advertising space at the Leicester Royal Infirmary and flood information and publicity materials in an effort to increase engagement with the public. It has also recently been involved in creating a leaflet for homeowners who live near to watercourses about how to minimise the risk of flooding.

### Community Flood Wardens

78. The Community Flood Warden Scheme is a significant communication channel through which the public can be signposted to the appropriate agencies. Wardens are members of the local community and help to bring people together at times of flood difficulty and help to prepare 'at risk' communities for flooding. They are supported by the County Council (through the LRF) and the Environment Agency.
79. There are now over 110 Wardens based at various locations around the County. Specifically, their role is to:
- Ensure that members of the community have received direct flood warnings, understand what they mean and where they can receive further help;
  - Ensure that communities work closely to prepare for a flood and identify vulnerable people from within the community who may need help;
  - Report blocked drains and ditches to the appropriate agency;
  - Develop a community flood plan;
  - NOT be involved in any rescue attempts or put themselves at risk.
80. The LRF has worked well in engaging parish and district councils on flooding and the Panel is fully supportive of its work thus far, however, it feels that more work needs to be done in this regard to increase awareness and ensure that flooding is adequately taken account of via the planning process. With this aim in mind, the

Panel feels that it would be beneficial for the County Council, as lead authority on the FRMB, to host a seminar to which parish and district councils, the Environment Agency, Severn Trent Water and other key agencies be invited in order to share and provide information and enable a cohesive approach to flood risk. Subject to the success of that event, the Panel is of the view that that this could be something the Council host on an annual basis.

81. Engagement of the public on flood risk is also essential. The Panel is keen that the County Council's flagship newsletter 'Leicestershire Matters', together with district counterparts, should be utilised to capture the public's imagination on this issue and make people aware of services that are available to them.

**The Panel is of the view that:**

- **Good work is being carried out by the LRF in respect of engaging the public on flooding issues, but that more can be done to capture the public's imagination on the flood risk issue, for instance via articles in County Council and district council publications;**
- **Clear communication must continue to be provided to the public in order that those considered to be 'at risk' are signposted to the appropriate agencies;**
- **A day-long seminar should be hosted by the County Council involving key partners such as the Environment Agency, Severn Trent Water and district and parish councils with the aim of raising awareness for flood risk mitigation and improving communications between partners.**

### **Resources Implications**

82. The recommendations in the report can be implemented within existing budgetary provisions. However, it is clear that the financial implications of the Act can not be met within existing Council budgets and it is therefore hoped that the funding requirements of the Council will become clearer over the coming months.

### **Recommendations**

83. The Scrutiny Commission is recommended to:-
- (a) support the overall findings of the Panel and refer the conclusions and recommendations as summarised in **Appendix 1** to the Cabinet for its consideration;
  - (b) request the Chairman of the Panel to liaise with the appropriate Cabinet Lead Member and Chief Officer with a view to monitoring progress made against the recommendations and to report as appropriate to the Scrutiny Commissioners and/or the Commission.

**Mrs. R. Page CC**  
**Chairman of the Panel**

### **Environmental Implications**

84. Flood and drought risk is expected to rise as a result of climate change and will have significant impacts on economic, social and environmental assets. This report sets out the necessary steps to support the delivery of adaptation measures to reduce the risks and impacts of flooding.

### **Equal Opportunities Implications**

85. None.

### **Circulation under the Local Issues Alerts Procedure**

86. None.

### **Background Papers**

The Flood and Water Management Bill – 21 April 2009

The Pitt Review Report – June 2007

### **List of Appendices**

Appendix 1 – Summary of Recommendations

Appendix 2 – Glossary of Terms