

Wiltshire Council

Environment Select Committee

10 May 2011

Preliminary Flood Risk Assessment and Flood Risk Management

Executive Summary

The Council has established robust processes to monitor and manage flood risk in Wiltshire.

There is a requirement under the Flood Risk Regulations 2009 for the Council to prepare a Preliminary Flood Risk Assessment for Wiltshire. The draft document is included as **Appendix 1**.

Proposals

That the Committee:-

- (i) Notes the progress made in improving flood risk management in Wiltshire, and the effective work of the Operational Flood Working Groups chaired by Councillors Seed and Hewitt.
- (ii) Approves the draft Preliminary Flood Risk Assessment included as **Appendix 1** of the report.

Reason for Proposal

An assessment of flood risk has been undertaken using information on historic flooding and modelling work undertaken by the Environment Agency. The assessment confirms that there are no Flood Risk Areas in Wiltshire as defined by the regulations.

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Corporate Director

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Preliminary Flood Risk Assessment and Flood Risk Management

Purpose of Report

1. To inform the Committee of the current position with regard to flood risk management in Wiltshire and to consider the draft Preliminary Flood Risk Assessment (PFRA) for Wiltshire.

Background

2. Following the floods in Tewkesbury in 2007 the Government commissioned Sir Michael Pitt to undertake a review of flood risk management. The Pitt Review made a series of recommendations to improve resilience to such events, and the Flood and Water Management Act 2010 has taken forward many of the proposals to provide better and more comprehensive management of flood risk for people, homes and businesses.
3. The Flood and Water Management Act 2010 created a new role of Lead Local Flood Authority (LLFA) to co-ordinate flood risk management in their areas. In the case of two tier authorities this would be the County Council, or in the case of single tier authorities such as Wiltshire it will be the Unitary Council, who will be responsible for forming partnerships with other authorities and bodies.
4. The Environment Agency (EA) remains the body responsible for flood risk management nationally and for managing risks from main rivers, the sea and large raised reservoirs.
5. The regulations in connection with the Flood and Water Management Act 2010 are being enacted in stages. The LLFAs are responsible for managing local flood risk in particular from ordinary watercourses, surface runoff and groundwater. The LLFAs have a responsibility to prepare PFRAs for their areas by 22nd June 2011 in order to identify potential 'significant' flooding risk as defined by the legislation.
6. The value that Scrutiny can bring to the process is appreciated by the EA, and it was suggested that LLFAs should make arrangements for the PFRA to be considered by an appropriate Scrutiny Committee prior to submission.
7. A report on Flood Risk Management was originally submitted to this Committee on 11 September 2009 when the proposed Flood Management Strategy for Wiltshire Council was outlined and the progress being made with regard to implementing the Pitt Review recommendations was described. A further report was made in March 2010 to update Members about developments.

8. Since then considerable progress has been made in addressing flood risk in Wiltshire, and in carrying out the Council's duties in connection with the Flood Risk Management Regulations 2009. A key part of the legislation is the requirement to prepare a PFRA.

Main Considerations for the Council

Operational Flood Working Groups

9. Two Operational Flood Working Groups (OFWGs) have been set up to co-ordinate the Council's flood risk management. The Groups are chaired by Councillor Jonathon Seed in the north and Councillor Mike Hewitt in the south, and the areas of coverage align with the catchment areas of the main river systems in the county, and reflect the Local EA offices. These meetings are the Council's principal means of managing flood risk.
10. The meetings are attended by Council officers responsible for land drainage, emergency planning and spatial planning as appropriate. The meetings are generally held every two months, and are regularly attended by officers from the EA, and by others as necessary including water companies, Highways Agency, and Network Rail. Representatives of Town and Parish Councils can attend by invitation to discuss particular concerns.
11. The OFWGs have been very successful at co-ordinating drainage works with the EA and others, and in liaising with the Parish and Town Councils who have formed their own working parties to deal with local issues. The Local Groups are encouraged to liaise with local landowners regarding work required by others.
12. The work of the OFWGs has been identified as being good practise nationally, and they have been referred to at recent capacity building workshops arranged by DEFRA for Local Councils taking on the LLFA role.

Drainage and Flood Alleviation Works

13. The Council has provided funding of £500,000 annually to enable the implementation of flood alleviation and drainage improvement schemes. The projects are prioritised and co-ordinated through the OFWGs, with a number of schemes being undertaken in conjunction with the EA and others. Where possible joint funding is promoted as a means of progressing schemes.
14. The ability to undertake substantial construction works to address drainage and flooding problems has placed this Council in a good position compared to some two-tier authorities, where obtaining funding and agreeing on priorities can be difficult.
15. The list of drainage schemes undertaken each year by the Council is included in the Community Area Highway Information which is produced for each Area Board and is made available on the Council's website each April.

Flood Risk Awareness

16. Two Flood Risk Awareness events have been arranged in order to inform local communities about flood risk and offer advice about improving resilience. The first was held in Chippenham in April 2010, and following the success of that event a second was held in Salisbury in October 2010. Speakers attending included the EA, National Flood Forum, Met Office, Wiltshire Fire and Rescue, Local Flood Groups and the Council's Emergency Planning Team.
17. The events were well attended and provided information on how communities can help protect themselves and their properties. The role of local Flood Wardens was described and communities at risk are encouraged to develop their own flood plans.
18. The Council's Parish Newsletter, which is published in electronic and paper form, is circulated to all Town and Parish Councils and can be viewed on the Council's website. This has proved to be a good means of communicating with the Local Councils and providing information of Flood Warden training opportunities. The newsletter was used to advertise the Flood Awareness events and report local success stories and the work of the OFWG.
19. The Council provides gel-sacs at cost price to the Town and Parish Councils in response to requests from those who wished to hold their own supplies. The gel-sacs are similar to sandbags, but are filled with a gel that expands when wet, and when dry they are virtually flat. This means they are simple to store and far easier to distribute in an emergency. They inflate when immersed in water, allowing a protective flood barrier to be built quickly to protect doorways and airbricks. When the flood has abated they can often be reused.
20. The Council's Area Boards have been used to help collect information on previous flooding events. Displays have been put on at the Area Board meetings to raise awareness of flood risk and to show the simple measures such as the gel-sacs which can be used to help protect properties.

Flood Wardens

21. The Environment Agency Wessex Region established a network of flood wardens in the south of the county in 2003. This was a local EA initiative and wardens are not in place throughout the country. Following discussion at the OFWGs an offer has been made to Parish and Town Councils who wished to participate in the scheme.
22. Two Flood Warden training days have already been held in conjunction with the EA, and a number of Parish Councils have expressed interest. Additional training will be provided shortly. The Flood Wardens are the point of contact for the parishes for flooding matters and are trained by the EA on how to form a Local Flood Working Group and prepare flood plans.

Collection of Information on Flooding

23. The Area Boards have assisted in collecting information on historic flooding from Town and Parish Councils. This local knowledge has been invaluable in identifying areas subject to flooding and understanding the likely causes of the flooding.
24. A majority of the Local Councils have responded positively to this request for assistance, and the quality of the information collected has been very good. It has already informed the work of the OFWGs in considering priorities.
25. The Council's Area Highway Offices and other departments have provided help in identifying sites of frequent flooding and potential problems with drainage systems. Programmes of highway drainage surveys and repairs have been undertaken by the Council for a number of years, and the Council has previously been recognised by the Department of Transport for its positive approach to drainage asset management.
26. Recent mapping published by the EA on surface water flooding risk has increased the information available, and it will be augmented by Surface Water Management Plans (SWMPs) being developed initially for key areas likely to be subject to future development pressures.
27. The information held by the Council on watercourses, drainage systems and related infra-structure in the county is far from complete, but the records held by Wiltshire are substantially better than many authorities, and are being improved continuously.

Flood Plans

28. A significant amount of work has been undertaken recently to ensure Wiltshire Council is ready to respond to flooding. The Local Resilience Flood (LRF) Plan was prepared by the Council's Emergency Planning Unit and involved consultation with partner agencies. It is likely that further refinement of the multi-agency plan will take place shortly through the LRF Executive Group.
29. A Flood Plan for Wiltshire Council has recently been prepared to replace and update the previous Plan prepared by Wiltshire County Council in conjunction with the four District Councils. The new Plan incorporates guidance on roles and responsibilities for services within the Council, and establishes protocols for assistance and advice to the public.
30. In March 2011 the Wiltshire Flood Plan was tested in Exercise Watermark. This was a national desk-top exercise to respond to a serious flooding event nationally, and Wiltshire took the opportunity to test its own plans and procedures at the same time. The plan was effective and the lessons learnt from the exercise will be incorporated in an updated document in due course.

31. The Council's initial response to flood events will be provided by the Council's Highway Works Contractor Ringway, who also provides the out of hours response to incidents on the highway network. In order to take on the flood response role Ringway organised a series of Flood Forums with relevant Council Officers to ensure that there is a clear understanding of the processes to be followed by all likely to be involved.
32. The Ringway Team and the Council's Support Teams likely to be involved in any future flooding event will be the same as those who have operated the snow and winter response successfully in recent years. The teams are used to working together and have a good track record of dealing effectively with difficult and changing circumstances.
33. Operational Response Plans are being developed for those towns and villages considered to be most at risk from flooding. The plans will identify the likely areas susceptible to flooding, facilities, roads and infrastructure which may be at risk. They will help inform the Duty Engineers initial response to any incident.
34. The preparations are in place to ensure that the Council has an effective response to flooding events.

Property Protection

35. Property owners are responsible for protecting their own property. Where property is at risk of flooding owners are encouraged to take steps to ensure the protection of their property and to speed the recovery following flooding. Information is available on the EA website regarding suitable measures that can be used by individuals to reduce the risk to their property.
36. The Council encourages communities and individuals to make plans to enable them to cope with potential flood events. This is achieved through the OFWGs, Flood Awareness events and by the appointment of Flood Wardens.
37. When the opportunity arises the Council bids for funding for individual household protection measures, but it is accepted that urban areas elsewhere in the country are likely to take priority as there are far more properties at risk in those places.
38. It should be noted that during severe flooding it is unlikely that the Council will be able to respond to requests for assistance to protect properties. The priority will be to keep transport links open, support the emergency services and protect critical infra-structure.

Preliminary Flood Risk Assessment

39. The Flood Risk Regulations 2009 implement the requirements of the European Floods Directive, which aim to provide a consistent approach to managing flood risk across Europe. It establishes four stages of activity within a six year flood risk management cycle.

40. The first stage of the cycle is for the LLFAs to carry out a PFRA and prepare a Preliminary Assessment Report and identify flood risk areas. This information has to be submitted to the EA by 22 June 2011, who will review, collate, publish and report the results to the European Commission.
41. The subsequent stages are to prepare flood hazard and flood risk maps by 22 June 2013, and to prepare Flood Risk Management Plans by 22 June 2015. The cycle will then start again in 2016, so it is important to ensure that information on flooding is collected by the Council, and is maintained and kept up to date for future use. In the next cycle it will be mandatory to collect information for floods that occur after 22 December 2011.
42. It should be noted that there is a specific definition of 'significant' in the context of the PFRA requirements. The EA have carried out initial assessment work based on the number of properties in each 1km square with an estimated 1 in 200 risk of flooding in any given year. The adjoining grid squares were analysed to identify those clusters where more than 20,000 people were considered to be at risk. In the south-west the only area qualifying as having a Flood Risk Area as defined by the guidance is Bristol.
43. No definition of locally significant harmful consequences of flooding is provided in the guidance and it is left to the LLFAs to set their own definitions. The South West Flood Risk Managers Group has agreed that a flood should be considered locally significant if it causes internal flooding to five or more residential properties, or floods two or more business premises, or one or more items of critical infrastructure, or causes a transport link to be totally impassable for a significant period.
44. The draft PFRA for Wiltshire is included as **Appendix 1** of this report. The review of historic flood information currently available, and the surface water flooding information provided by the EA, have been reviewed, and it is confirmed that there are no Flood Risk Areas in Wiltshire as defined by the guidance.
45. There are areas in Wiltshire where locally significant flooding has occurred, and there are areas at risk of future flooding. These have been recorded and the records will be updated and the information amended as additional flood modelling and survey information becomes available. The draft PFRA document will be updated with the latest information on historic floods and the results of the DEFRA modelling before submission.
46. The PFRA will be submitted to the EA, subject to any alterations required as a result of the review process and any additional information collected before submission.

Future Changes in Legislation

47. The Flood and Water Management Act 2010 includes provision of the development of sustainable drainage systems (SuDS) and their future management. This element of the legislation has not yet been finalised, but will establish a SuDS Approving Body (SAB) to approve drainage systems in developments. The SAB in Wiltshire will be this Council and the necessary arrangements will need to be put in place to discharge this duty.
48. The drainage systems covered by the legislation will include structures and features developed to manage surface water and prevent localised flooding. They should encourage natural groundwater recharge, and filter the water to prevent pollution entering the watercourse or aquifer.
49. It is likely that the legislation will strengthen existing planning controls, but the funding and details of the arrangements are not yet clear. However, in view of the Pitt Review the principle is to be welcomed.
50. The recently enacted provisions of the Act include the power for LLFAs to request information from a person in connection with flood risk, and the duty to carry out investigations in connection with flooding. There is also the responsibility to establish and maintain a register of structures or features which are likely to have a significant effect on flood risk. Further guidance is awaited regarding the definitions and application of these requirements.

Environmental Impact of the Proposal

51. Flooding can have serious environmental consequences. Managing flood risk effectively can reduce the potential environmental damage. Schemes to reduce flood risk will need to take into account the potential environmental impacts, and seek to achieve environmental improvements where possible.

Equalities Impact of the proposal

52. None identified.

Risk Assessment

53. Flooding represents a potentially serious risk to public safety, and it is important that appropriate steps are taken to reduce risks and respond effectively to incidents. The preparation of the PFRA and the collection of data on existing and potential flooding will help the Council to reduce the risk.

Financial Implications

54. It is anticipated that complying with the recommendations of the Pitt Review and the Flooding and Water Management Act 2010 could incur significant costs, and this will have to be monitored as further details of the legislation and duties emerge.

Legal Implications

55. The Council already has duties as local land drainage authority, and in connection with the drainage aspects of planning and highways. The role of LLFA has specific duties that are required of the Council, including the preparation of the PFRA.

Options Considered

56. The Council has established processes to manage flood risk in Wiltshire. These include the two Operational Flood Working Groups (OFWGs) which co-ordinate the work of the Council with the EA and other organisations, and help to prioritise local drainage improvement and flood alleviation schemes.
57. The Council has a substantial budget of £500,000 for drainage works in 2011/12, which is managed through the OFWGs. The process has already been operating successfully for two years and is considered to be effective. The OFWGs have successfully delivered a number of drainage schemes which have been outstanding for years, and the opportunity is being taken for joint working and funding with others, including the EA and landowners, where possible.
58. Two Flood Awareness events have been held for Town and Parish Councils in Wiltshire. Local communities at risk of flooding are being encouraged to appoint flood wardens and prepare their own flood plans, with training provided in conjunction with the EA. To assist local communities the Council is making gel-sacs available at cost to the local Town and Parish Councils.
59. The Flood Plan for Wiltshire has been reviewed and updated, and individual Operational Response Plans are being prepared for the towns most at risk. The Council's Highways Maintenance Contractor will provide the initial response in the event of flooding, and resources and procedures are in place to facilitate this.
60. A PFRA has been undertaken as required by the Flood Risk Regulations 2009 and it is confirmed that no Flood Risk Areas as defined by the legislation have been identified in Wiltshire.

Conclusions

61. An assessment of flood risk has been undertaken using information on historic flooding and modelling work undertaken by the EA. Although it is acknowledged that historic records are not complete, it is considered that there is sufficient information available to meet the requirements of the legislation, and a PFRA has been prepared for Wiltshire.

62. The Council has robust procedures in place to monitor and manage flood risk in Wiltshire. The OFWGs are recognised as being an example of good practice for managing flood risk and working with local communities, and there is a substantial programme of drainage works being developed for 2011/12 through the OFWGs.

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The following unpublished documents have been relied on in the preparation of this Report:

None.

Appendices

Appendix 1 - Draft Preliminary Flood Risk Assessment