

**Wiltshire Council**

**Environment Select Committee**

**27 October 2015**

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**Subject: Wiltshire Local Flood Risk Management Strategy**

**Cabinet Member: Councillor Jonathon Seed – Housing, Leisure, Libraries and Flooding**

**Key Decision: No**

**Executive Summary**

Wiltshire experienced severe flooding between December 2013 and March 2014, with over 500 properties flooded and a number of roads having to be closed to traffic. Flooding in September 2014 affected over 80 properties, and in September 2015 there were 20 properties flooded in Salisbury and the south of the county. Many communities in Wiltshire have experienced at first hand the damage, distress and disruption that flooding can cause.

The Council's Strategic Flood Risk Management Group is chaired by Cabinet Member, Councillor Seed, who works closely with the three Operational Flood Working Groups, currently chaired by Councillors Hewitt, Jacobs and Clewer.

The Operational Flood Working Groups cover the north and south of the county, based broadly on river catchment areas, with a separate group for Salisbury, and usually meet every two months. The meetings are generally attended by representatives from the Environment Agency, Wessex Water, Thames Water, Highways England, Network Rail, Wiltshire Fire and Rescue, Country Land and Business Association (CLA), Canal and Waterways Trust and other organisations having an interest in flooding and drainage matters, including town and parish councils.

The Council has an ongoing programme of work to reduce flood risk for local communities (see **Appendix 1**).

The Local Flood Risk Management Strategy (LFRMS) was reviewed by the Committee at its meeting on 28 October 2014, and was subsequently approved with minor alterations by Cabinet in December 2015. In view of the particular problems of ground water a Groundwater Management Strategy has been developed (see **Appendix 2**) to augment the LFRMS.

In order to develop a programme of flood alleviation schemes a high level scheme identification study has been undertaken. A bid has been submitted for Wessex Regional Flood and Coastal Committee (WRFCC) Local Levy funding for further development (see **Appendix 3**). The intention is that a prioritised programme for future schemes will be identified for future consideration by the Flood Working Groups.

The use of sustainable drainage systems (SuDs) on new developments has been encouraged in recent years, with a number of schemes being successfully implemented. The Council has produced a comprehensive guide which will be available on the Council's website. A summary guidance document has also been produced (see **Appendix 4**). Developers should be adhering to these policies and practices to reduce flood risk in connection with new developments.

### **Proposal**

The Committee is requested to note:

- (i) the progress being made on managing flood risk in Wiltshire, and the work of the Operational Flood Working Groups, which have been particularly effective at working with local communities, the Environment Agency and other organisations.
- (ii) the development of the Groundwater Management Strategy and the Developers Guides to augment the strategy set out in the Local Flood Risk Management Strategy.

### **Reason for Proposal**

The Flood and Water Management Act 2010 requires the Council to prepare a Local Flood Risk Management Strategy. The groundwater strategy, prioritised programme of future schemes, and developers guide will help to manage flood risk in Wiltshire and reduce risks for our communities.

**Dr Carlton Brand**  
**Corporate Director**

**Wiltshire Council**

**Environment Select Committee**

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**Cabinet Member: Councillor Jonathon Seed – Housing, Leisure, Libraries and Flooding**

**Key Decision: No**

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**Purpose of Report**

1. To update members on progress made with regard to flooding since the last report to this Committee on 28 October 2014.

**Relevance to the Council's Business Plan**

2. The overall aim of the flood risk management strategy is to support the Wiltshire Council Business Plan vision to create stronger and more resilient communities. The suggested improvements meet the Business Plan outcomes of:
  - People work together, solve problems locally and participate in decisions that affect them, and
  - People feel safe and are as protected as possible from harm.

**Background**

3. The Flood and Water Management Act 2010 requires Wiltshire Council to develop a Local Flood Risk Management Strategy (LFRMS). The Council is responsible for maintaining, applying and monitoring the strategy, and ensuring that it is consistent with the National Flood and Coastal Risk Management Strategy.
4. Wiltshire experienced severe flooding between December 2013 and March 2014, with over 500 properties flooded and a number of roads having to be closed to traffic. Flooding in September 2014 affected over 80 properties, and in September 2015 there were 20 properties flooded in Salisbury and the south of the county. Many communities in Wiltshire were also affected by the flooding in 2007 and in 2008. Communities in Wiltshire have experienced at first hand the damage, distress and disruption that flooding can cause.
5. Flood risk within Wiltshire is often a complex interaction between river, surface, ground water and sewer flooding, and the local geology is a significant factor. The northern part of the county is predominately underlain by clay, with flooding generally caused by river or excessive surface water runoff. The south of the county is characterised by underlying chalk deposits, with potential risk of ground water flooding in many areas.

6. The risk of flooding is increasing due to pressures in urban environments, and with climate change more severe rainfall events are predicted. These will create additional challenges for communities and have implications on the developed environment.

## **Main Considerations for the Council**

### Flood Risk Management Groups

7. The Council's Strategic Flood Risk Management Group is chaired by a Cabinet Member portfolio holder, Councillor Seed, who works closely with the three Operational Flood Working Groups, currently chaired by Councillors Hewitt, Jacobs and Clewer.
8. The Operational Flood Working Groups cover the north and south of the county, based broadly on river catchment areas, with a separate group for Salisbury, and usually meet every two months. The meetings are generally attended by representatives from the Environment Agency, Wessex Water, Thames Water, Highways Agency, Wiltshire Fire and Rescue, Canal and Waterways Trust and other organisations having an interest in flooding and drainage matters, including town and parish councils.
9. The priorities for addressing flood risk are assessed against the following criteria, which were set out in 2009 with the formation of Wiltshire Council:
  - (i) High speed road standing water
  - (ii) Property flooding
  - (iii) Highway flooding
  - (iv) Land flooding
  - (v) Agricultural land flooding
10. The Council has a significant budget for drainage improvement and flood alleviation works, and bids for additional funding as opportunities arise to help in implementing its strategy. The priorities are set by the Operational Flood Working Groups who co-ordinate the work with other organisations.

### Reducing Flood Risks

11. There was significant flooding across the county in 2014, and there have been a number of localised incidents this year. About 30 properties were affected in July 2015, with half of them being in the Salisbury area. The flood risk in Wiltshire continues to be significant, and it is important that local communities make appropriate preparations.
12. The Parish Emergency Assistance Scheme (PEAS) is funded by the Council and provides sand bags and equipment to local town and parish councils so that they can store these locally, and deploy them as necessary. The preparation of Flood Plans and appointment of Flood Wardens is important in helping communities to prepare themselves, and they are encouraged to make use of the resources available.

13. The Council is also working with local businesses to help them prepare flood plans and reduce flood risk, including working with the Environment Agency and Salisbury Chamber of Commerce.
14. The Department for Communities and Local Government (DCLG) funded Repair and Renewal Grant scheme provided funding for property owners affected by the flooding in early 2014 to build in resilience measures to reduce the impact of future flooding. The scheme was administered by the Council and 114 grants were approved with a total value of £483,536.27. This funding helped protect properties in Wiltshire previously affected by flooding. In addition, the Council received £282,000 funding from the Environment Agency and Defra for emergency repairs in 2014-15.
15. It was unfortunate that the scheme was limited to flooding before 31 March 2014 as there was significant flooding in Wiltshire later in the year, which did not qualify for the grant. Approaches were made to the Minister, but it was indicated that it was not intended to extend the scheme. This was particularly disappointing in view of the benefits the scheme offered to improve flood resilience to those most at risk.
16. The Council has a major programme of flood alleviation and drainage schemes with an annual budget of £1,000,000 which is significantly more than most local authorities spend on this type of work. The Council records properties at risk and has a targeted approach to schemes. This has enabled an extensive programme of work to be undertaken (see **Appendix 2**). In addition, the Council has been successful in bidding for funds from Defra and the Environment Agency, with funding being obtained for work at Aldbourne and Great Bedwyn, which were both badly affected by the flooding last year.

#### Local Flood Risk Management Strategy

17. The LFRMS was reviewed by the Committee at its meeting on 28 October 2014, and was subsequently approved with minor alterations by Cabinet in December 2015. The LFRMS is available on the Council's website and explains:
  - The roles and responsibilities of Wiltshire Council as a Risk Management Authority and its management functions.
  - How the Council works with neighbouring authorities and others.
  - The objectives for managing local flood risk.
  - The measures proposed to meet these objectives.
  - How technically and financially and when these measures will be implemented.
  - How we will develop, maintain, apply and monitor our LFRMS.
18. The aim of the strategy is to work with stakeholders, local communities and organisations responsible for managing flood risk to enable a better understanding of flood risk and thereby reduce the risk of flooding within the county where it is technically, environmentally, socially and cost-effective to do so. It has the following objectives to:
  - Improve knowledge regarding flood risk
  - Improve protection from flooding

- Improve resilience to flooding
  - Improve the environment
  - Improve communications about flooding issues
19. The Local Flood Risk Management Strategy describes responsibilities with regard to flood risk, the types of flood risk and how flood risk is managed in Wiltshire. Self help by affected residents and communities is a major thrust of the strategy. Local communities are encouraged to prepare Flood Plans and appoint Flood Wardens, and residents are encouraged to take measures to protect their property and reduce the potential effects of flooding.

#### Groundwater Strategy

20. The geology of Wiltshire makes many areas susceptible to groundwater flooding, especially where the underlying geology is chalk. Groundwater flooding occurs when prolonged rainfall causes the underlying aquifer to fill up with water, and with nowhere else to go the water rises to the surface.
21. Various mechanisms may have an influence on the different characteristics of groundwater flooding. Historical and present events in Wiltshire have demonstrated that a significant number of flooding incidents can be attributed to groundwater emergence.
22. In 2012 groundwater levels rose significantly in the Salisbury area, and there were concerns about the possibility of flooding in the south west of the county, but fortunately levels reduced in the spring. However, in 2013/14 the groundwater levels rose to their highest levels recorded and there was flooding at many locations in Wiltshire, especially in the south.
23. In view of the particular problems of ground water the Council has developed a Groundwater Management Strategy (see **Appendix 2**) to augment the LFRMS. The strategy has been developed in conjunction with Wessex and Thames Water as sewers can be particularly susceptible to groundwater flooding, and it is important that new developments take into account potential groundwater impacts.

#### Identifying Future Flood Risk Schemes

24. The Council has a substantial programme of capital works to improve drainage and reduce flood risks. In addition, the Council bids for funding from Defra, Wessex Regional Flood and Coast Committee (WRFCC) Local Levy and other funds as opportunities arise.
25. In order to develop schemes a high level scheme identification study has been undertaken in order to prioritise flood risk schemes in the county, and to identify future bidding opportunities. A bid has been submitted for WRFCC Local Levy funding for further development (see **Appendix 3**). The intention is that a prioritised programme for future schemes will be identified for future consideration by the Flood Working Groups.

26. The Council works closely with the Environment Agency on managing flood risk, and is involved in studies currently being undertaken. Detailed modelling of flood risk in Salisbury is currently underway, and it is hoped that this will lead to bids for flood protection measures for the city, which was at serious risk of flooding in February 2014.

#### Sustainable Drainage Systems

27. Flooding from any source can have enormous environmental, economic and social consequences. However, there is a limit to how far existing underground drainage systems can be upgraded or extended, and there is consequently an increasing focus on managing water in a more sustainable way.
28. The Council's drainage team reviews and comments on planning applications, providing advice to other Council departments and teams, and deals with general enquiries from the public regarding drainage matters. The team also reviews and approves Land Drainage Consent applications.
29. Wiltshire Council's approach is to ensure that there is effective management of surface water on all sites, but particularly on those where proposed redevelopment is likely to present significant opportunities for improvement and the achievement of sustainable development. This approach will reduce pressures on the existing drainage infrastructure and reduce the risk of surface water flooding and pollution.
30. The use of sustainable drainage systems (SuDs) on new developments has been encouraged in recent years, with a number of schemes being successfully implemented. The Flood and Water Management Act 2010 envisaged the establishment of SuDs Approval Bodies, but it has recently been announced that approval will now be through the planning process.
31. In order to provide guidance to developers a comprehensive guide has been produced and is available on the Council's website. A summary guidance document has also been produced (see **Appendix 4**). These documents should help developers to design schemes which will conform to current design standards and best practice and reduce flood risk in connection with new developments.

#### **Safeguarding Implications**

32. Does not apply.

#### **Public Health Implications**

33. Flooding can have serious health implications, not only from the risk of injury and drowning, but also from pollution when sewers and industrial sites are affected. Having a strategy to reduce the impact of flooding is important to help protect our communities. The stress caused to those affected by flooding, and the disturbance and disruption should not be underestimated.
34. There are particular problems with sewers overflowing, especially as a result of groundwater inundation. The Council's staff hold regular co-ordination meetings with the water companies regarding this issue.

35. Flooding also has implications for road safety, especially with regard to standing water on high speed roads.

### **Environmental and Climate Change Considerations**

36. The projections for future climate change are that it is likely that winters will become significantly wetter and extreme winter precipitation will increase. In summer there is likely to be less overall rainfall, but intense heavy downpours are anticipated. As the main cause of surface water flooding is this storm rainfall, there is likely to be an increased risk of river and surface water flooding, but there is also likely to be an increase in groundwater flooding.
37. There was considerable long-term flooding in early 2014, but there has also been significant local flooding in recent years which has overwhelmed road drainage system, which can usually cope with a 1 in 5 year to 1 in 30 year storm. Recent events have included an estimated 1 in 481 year event. Short duration high intensity storms appear to be an increasing problem.
38. The proposed Wiltshire LFRMS takes the implications of climate change into account in Appendix 1 of that document.

### **Equalities Impact of the Proposal**

39. No significant factors have been identified.

### **Risk Assessment**

40. Since flooding is a serious issue for Wiltshire there is a reputational risk in not developing flood alleviation measures. It is important to have a clear approach to how we tackle the issues and that the Council is pro-active in its flood management across the county, recognising the increasing risk posed by predicted wetter weather.
41. The risks of flooding are managed by appropriate emergency planning, business continuity plans, and the operation of the out of hours duty engineer.

### **Risks that may arise if the proposed decision and related work is not taken**

42. There are no decisions required at this time, and this report is for information only.

### **Risks that may arise if the proposed decision is taken and actions that will be taken to manage these risks**

43. There are no significant risks associated with this report.

### **Financial Implications**

44. There are no direct financial implications currently. However, it is important that opportunities are taken to bid for Defra and other funding sources as opportunities arise in the future.



## **Legal Implications**

45. The Flood and Water Management Act 2010 requires the Council to prepare a Local Flood Risk Management Strategy. The Council is also a landowner with extensive ownership, including car parks, public open spaces, buildings and other areas which can be at risk of flooding.
46. Legal support is required in connection with carrying out flood management duties, especially with regard to the Byelaws and land ownership issues. Ensuring land owners carry out their responsibilities with regard to reducing flood risk for others remains a challenge.

## **Options Considered**

47. This report is for information only, and no decisions need to be made at this time.

## **Conclusions**

48. The work carried out by the Council in connection with flood alleviation and drainage improvements helps the Council meet its duties as Lead Local Flood Authority under the Flood and Water Management Act 2010. The Groundwater Management Strategy, prioritised programme of future schemes, and developers guide will help to manage flood risk in Wiltshire and reduce the flood risk for our communities.

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

None

## **Appendices:**

- Appendix 1 – List of Recent Flood Alleviation and Drainage Improvement Schemes
- Appendix 2 – Wiltshire Groundwater Management Strategy
- Appendix 3 – Local Levy Programme Bid
- Appendix 4 – Guidance for Developers