

Cabinet

4 December 2012

Report of the Cabinet Member for Transport, Planning & Sustainability

Surface Water Management Plan

Summary

- 1 The enquiry into the flooding experienced nationally in 2007 resulted in the publication of the Pitt Review with a key recommendation for Lead Local Flood Authorities to prepare Local Surface Water Management Plans. These would outline the preferred strategy for the management of surface water in given locations, to establish a long term action plan and to influence future strategy development for maintenance, investment, planning and engagement.
- 2 The Surface Water Management Plan which covers the whole of the Council's area has been prepared, and this report requests members to approve it.

Background

- 3 While there is robust response procedure for the known effects of York's flooding from river sources, knowledge of the effects of local rainfall flooding is minimal, due mainly to the lack of any events that have caused major problems. The Preliminary Flood Risk Assessment (PFRA), approved by Cabinet on 6 September 2011, addressed this at a high level, and the Surface Water Management Plan (SWMP) assesses local flood risk in more detail. The output from these documents, together with the Council's Strategic Flood Risk Assessment (SFRA), will form key evidence in the preparation of the Local Flood Risk Management Strategy (LFRMS) which Lead Local Flood Authorities (LLFAs) are required to produce under section 9 of the Flood and Water Management Act 2010 (FWMA).

- 4 The SWMP study analysed a sample of the surface water floods which affected locations across York during intense rainfall in June 2007. Using Environment Agency (EA) flood mapping data, area specific hydraulic modelling and site investigation the analysis has enabled conclusions to be drawn as to the cause of the flooding and solutions. The SWMP report is included as annex 1.
- 5 The analysis has concluded that:
 - Drainage infrastructure is often unrecorded and, when found, frequently blocked with roots and silt, or sometimes damaged due to utility or other excavations. This has highlighted a lack of knowledge of the location and condition of surface water infrastructure and long term neglect in its maintenance often rendering it ineffective against even minor flood risk. Blockages of the pipe system serving gullies renders them ineffective, and cleaning gullies in isolation often does not address the cause of flooding problems. Therefore the performance of all of the elements of the highway drainage infrastructure needs to be confirmed and optimised.
 - Natural surface water flow paths have often been adversely affected by development. Increased areas of impermeable surfacing from development and road schemes have put pressure on drainage infrastructure, which is frequently in an unsatisfactory condition, all of which increases flood risk. While it may not be possible to remedy this it has highlighted the importance of managing future development effectively to minimise flood risk.
- 6 The Council, as highway authority, is responsible for maintenance of road gullies on the adopted network. The piped infrastructure serving these can be owned by Yorkshire Water Services, as is often the case in built up areas, or CYC, particularly on more rural roads. These may discharge into culverts or watercourses that are privately owned or maintained by an Internal Drainage Board. In practice it has been found that there is frequently a combination of ownerships and consequent responsibilities, which is why partnership working will be key to addressing the issues involved.
- 7 It is clear that data deficiencies and the lack of maintenance make local flood risk difficult to predict and manage. The effects of intense rainfall events, which are predicted to be more prevalent due to

climate change, increase this risk. It has also become clear from the investigations that flood risk has been increased by inappropriately designed development.

- 8 Investigations carried out in other areas not included in the study have led to the same conclusions. This gives confidence that the study sample is representative of the citywide situation. Arising from these conclusions the SWMP provides an action plan for the management of future local surface water flood risk.

SWMP Action Plan

- 9 The study has identified two principal ways in which future surface water flood risk should be managed:
- Maintenance of assets.
 - Control of development

Maintenance of Assets

- 10 Specific investment on highway drainage investigations and repairs was triggered by the 2007 flood event, and has resulted in repairs and the acquisition of data covering approximately 10% - 15% of the Council's area. On the basis of expenditure of £855k since 2008 and the progress that has been made, it is estimated that further funding of £5m will be required to investigate, record and bring up to a satisfactory standard the council's drainage infrastructure. The SWMP also raises concerns that the current gully cleaning regime does not focus satisfactorily on the mitigation of flood risk.
- 11 It is recognised that there are significant financial implications in the actions identified and it is recommended that a review of the management of the highway drainage service based on flood risk management principles is carried out which would be the subject of a further report in due course.

Control of development

- 12 Historically it has been normal for surface water from developments and highways to discharge unchecked into drainage systems, but this is no longer acceptable. The NPPF, SFRA and FWMA all require development to incorporate sustainable drainage (SUDS) to manage

not only the risk of flooding to the site itself, but also the surrounding area. The Flood Risk Management team takes a proactive role in development management to resolve drainage and flood risk design issues at application stage to avoid the need for conditions. Without considering flood risk and drainage as a fundamental element of the design, options to provide sustainable solutions at a late stage of the process are difficult or impossible to achieve.

- 13 The planning approval process does not cover highway works which can have an adverse effect on flood risk if carried out incorrectly. There is a clear requirement in the FWMA for highway authorities to make a contribution towards the achievement of sustainable development and the Flood Risk Management team will work with highway engineers to ensure that there is compliance with this requirement.
- 14 The Council will become a SUDS Approval Body (SAB) when the relevant part of the FWMA is enacted and guidance is issued. This will enable SUDS installations and their future management to be approved by the council to mitigate flood risk.

Consultation

- 15 Although guidance recommends the formation of a partnership and the involvement of stakeholders in the study it recognises that flexibility is required and that the way a partnership operates in practice will vary. In view of the council's well established working relationships with other flood risk management authorities and the dispersed and relatively minor nature of the flooding investigated it was decided that informal ad hoc partnerships would be most effective. Also there has been no impetus on the part of any communities to form action groups or to act collectively and as a consequence there have been no interest groups to involve as stakeholders in the study, though there has been liaison with residents and councillors as investigations progressed.
- 16 The EA, IDBs and YWS have all been consulted on the final report and have confirmed approval. Adjacent county authorities were consulted and both confirmed that they had not identified any cross boundary local surface water issues.
- 17 A formal partnership will be formed in the preparation of the Council's Local Flood Risk Management Strategy with the EA, YWS, IDBs and

appropriate community involvement, and the findings of this study, the PFRA and the SFRA will be form a key role in progressing it.

Options

- There is one option, to implement the SWMP

Analysis

18 Implementation of the SWMP will demonstrate that the Council recognises the importance of flood risk management and its duties under the FWMA. Although it will not prevent flooding it will ensure that the performance of existing infrastructure is optimised to minimise its effects. It will also ensure that flood risk is managed effectively in future development.

19 The consequence of not doing this is that flood risk will increase due to the continuing dilapidation of the drainage infrastructure, potentially aggravated by inappropriate development. Unpredictable and unbudgeted costs of reactive response to flood events will continue to be incurred and there could be compensation claims if the council is seen to have not responded to the findings of the SWMP. While the implementation of the action plan will not completely remove the risk of surface water flooding, the annual review of ongoing risk and priorities will identify where action should be taken to minimise it.

Council Plan

20 The SWMP is an assessment of local surface water flood risk with proposals for action. In conjunction with the SFRA, which will be used to guide development away from flood risk areas, it assists in the delivery of four of these priorities:

Get York Moving – helps to protect critical infrastructure from flooding.

Create jobs and grow the economy – managing the impact of flooding and guide development away from flood risk areas.

Protect Vulnerable People – identifying flood risk areas and potential protection.

Protect the Environment – Ensure that development takes flood risk into account.

Implications

21 The following implications have been identified:

- **Financial** The Surface Water Management Plan in itself has no financial implications but recognises the need to properly fund drainage issues within the council. Members will need to consider the issues raised within the plan as part of future budget rounds. Bids for ongoing capital drainage works are made through the Capital Resource Allocation Methodology process
- **Human Resources (HR)** There are no HR implications
- **Equalities** There are no equalities implications
- **Legal** There is no specific legal requirement to prepare a Surface Water Management plan although there is such a duty to prepare a Local Flood Risk Management Strategy. The Council may incur liability if flooding arises as a result of inadequate maintenance of the drains for which it is responsible.
- **Crime and Disorder** There are no Crime and Disorder implications
- **Information Technology (IT)** There are no IT implications
- **Property** There are no Property implications

Risk Management

22 Risk management is discussed in the analysis of the option.

Recommendations

23 It is recommended that Cabinet:

1. Approves the Surface Water Management Plan

Reason: to ensure that the Council has an action plan for managing surface water flood risk, and to influence the

development of future strategies for maintenance, investment, planning and engagement.

2. Approves a review of the Council's highway drainage maintenance service based on the principles of flood risk management, and to ensure that it is suitably funded. This will be the subject of a further report in due course.

Reason: To ensure that surface water drainage infrastructure operates effectively to reduce surface water flood risk in vulnerable areas.

3. Ensures that the current resources in the Flood Risk Management team are maintained, subject to the budget process, to enable effective involvement in the development control and highway design procedures.

Reason: To ensure that development does not increase flood risk.

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Responsible for the report:**

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Cabinet Member for Transport, Planning
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**Report
Approved**



Date 22 November 2012

Specialist Implications Officer(s)

**Patrick Looker – Finance
Andrew Docherty - Legal
Wards Affected:**

All

For further information please contact the author of the report

Background Papers:

Annexes

Annex 1 – Surface Water Management Plan