

Surface Water Flood Risk – Application for Defra funding.

Summary

1. This report advises the Executive Leader that two applications for grant aid have been made through the recently announced Early Action Fund for Tackling Surface Water Flood Risk provided by the Department of Environment, Food and Rural Affairs (Defra). It seeks approval to proceed with the projects if the bids are successful.

Background

- 2 Following the floods of 2007 the government commissioned Sir Michael Pitt to carry out a study into the cause of the floods and recommend a way forward so that the country is better prepared for subsequent events in the future. One of his finds identified problems with surface water, so Defra were tasked with starting to address this problem and assigned £5 million to the fund.
- 3 This Early Action Fund has been made available to enable Local Authorities to tackle surface water flood risk. The fund is available for making quick wins to start reducing the effects of surface water flooding immediately and also taking preventative measures by longer term planning to try to manage the risks of surface water flooding before it actually happens. The fund can be used for works to manage surface and groundwater flooding and producing Surface Water Management Plans (SWMPs).
- 4 Grants of between £20,000 and £100,000 will be awarded, these have to be spent between April 2010 and March 2011. The authorities whose bids are successful will be required to produce a report to the Environment Agency (EA) on what the work has achieved within six months of the completion of the works.
- 5 After reading the funding criteria two projects were identified which would benefit the residents of York:
 - SWMP for Central York
 - Westfield Beck, York – Sustainable Urban Drainage System (SUDS) Project.

The outcome of the submissions will be know in January 2010.

SWMP for York Central

- 6 This project is for the development of a SWMP for the central area of York. See Annex A which is a plan showing the general area to be covered. It will attempt to define the flooding problems in the area and assess which organisation(s) are responsible for them. Within this area there are 2800 properties at risk from flooding. Many of these are protected from river flooding by flood defence structures which were constructed in the 1980/90s to withstand a 1 in 100 year event. The flooding in 2000 was within 50 mm of overtopping those defences and subsequently it was assessed to be a 1 in 80 year event. Clearly the advent of climate change has modified the perceived protection level of the defences. This study will also look particularly at the pluvial (flooding due solely to rainfall in a local area) issues developing in the catchment.
- 7 During the flooding of November 2000 and summer of 2007 areas of the City were badly effected by flooding. Significant numbers of properties and gardens were flooded, although it is thought that this was under reported due to property resale worries that were being reported at the time.
- 8 In 2007, as a result of intensive rainfall the City also suffered pluvial flooding. Such events are becoming more frequent. Recent access to the maps showing "Areas Susceptible to Surface Water Flooding" has supported these concerns.
- 9 The Council as a potential Lead Local Flood Authority (LLFA), as defined in the proposed Flood and Water Bill, will need to develop the necessary knowledge base so as to fulfil that obligation. Having a SWMP will be a fundamental feature of fulfilling that duty. This project will provide the opportunity to work with Yorkshire Water, the Internal Drainage Boards (IDBs), the Environment Agency (EA) and other partners to identify the critical areas of the City where flooding occurs, particularly pluvial, and assess what may be a solution to the problem.
- 10 This will allow the Strategic Flood Risk Assessment (SFRA) to be updated and provide better information for use in the Local Development Framework (LDF), by providing a better evidence base for discussions with property developers. The resulting SWMP will allow solutions to flooding problems to be identified, these will be developed so as to benefit the natural environment and amenity value of the affected areas. This will be achieved by working with the Conservation Team within the Council's Planning Department.
- 11 The investigation and management of the study will be undertaken by the Council's Engineering Consultancy, drawing in specialist external surveyors and investigation teams as necessary. They will work closely with the local office of the Environment Agency who have intimate knowledge of the problems in the area.

The bid is for £100,000 starting in April 2010.

Westfield Beck, York – SUDS Project.

- 12 This project will provide improved protection against flooding in the village of New Earswick and allow development to continue in the conurbations of Haxby, Wigginton and New Earswick, in York. These can be seen on the location plan at Annex B. In the development strategy for these areas in the 1980s the then Local Authority agreed with Yorkshire Water Authority that the open watercourse, Westfield Beck, could be enhanced and used as a surface water outlet from the areas of Haxby and Wigginton. Due to the limited capacity of the existing downstream culvert, laid through the residential area of New Earswick, an overflow pumping station was constructed to divert peak flows from Westfield Beck to the River Foss. However, there is now occurrences of flooding from the watercourse effecting properties in New Earswick. The development of these three conurbations is almost complete, but with the advent of climate change and the infill development of extensions, conservatories etc, there is now little scope for the EA to grant consent to any future planning applications due to the current flooding problems.
- 13 This proposal is for the construction of an overflow lagoon, to relieve the watercourse in times of peak flow, which will lower the water level and reduce the potential of property flooding. Currently property flooding starts during rainfall events just greater than 1 in 25 year with significant flooding predicted in a 1 in 75 year event, however the lagoon would protect up to a 1 in 100 year event.
- 14 During the flooding of November 2000 this area of the City was badly effected by flooding. Significant numbers of gardens were flooded and some property flooding although it is thought that this was under reported due to property resale worries that were being reported at the time. Similar flooding had been reported in 1999 and subsequent to 2000, residents have reported the beck busting its banks with flood water approaching their properties. The Environment Agency have been working with the City Council to try and develop a solution to this problem. They commissioned a study through jba Consulting to investigate the problems and this proposal is the result of that study.
- 15 The Strategic Flood Risk Assessment for York has been completed. The risk of flooding in this area is confirmed at 1 in 100 year and the position of the lagoon will be determined with reference to the flood zone plain. The lagoon will draw off water from the watercourse and store it until after the peak has past. Thereafter the water will be released slowly back into the watercourse as the water level in the watercourse subsides. The lagoon will be built in a farmers field adjacent to a residential area on the upstream edge of the village. Its shape and landscaping will be commensurate with the rural surrounding. The Council's Conservation Officer and Landscape Architect will be engaged to ensure that the Lagoon will not have any adverse effect on the surrounding area, but more over will enhance the biodiversity of the area. The spoil generated from the excavation of the lagoon will be spread over the balance of the area in the same field.

- 16 Pre Planning Application discussions have already taken place with the Planning Authority and with out prejudice they have confirmed planning permission will be required for the storage lagoon, associated spillway and access road. They confirm that any works that are proposed to address potential flood risk in the City would be welcomed in principle. It is confirmed that the site is in the green belt, but they do not consider that the proposal would be likely to constitute inappropriate development as it maintains the openness and would not conflict with the purposes of including the land in the green belt. The extent and form of the access road will need careful consideration. Archaeology and ecology will be considered early in the project. As will any drainage consent discussions.
- 17 The design and management of the works will be undertaken by the Council's Engineering Consultancy. They will work closely with the local office of the EA who have intimate knowledge of the problems in the area.
- 18 The bid is for £100,000 and will be the major contribution to the cost of the project. A second top-up bid is being applied for through the Yorkshire Regional Flood Defence Committee (YRFDC) Local Levy fund to complete the £150,000 funding needed for the project.
- 19 There are some potential risks associated with the project which could frustrate it's completion, although they are thought to be manageable. Issues such as; securing the land, potential Vole or Great Crested Newt habitats and planning permission. If this scheme is granted entry onto the Defra's preferred list of schemes in January 2010, officers will start the work of mitigating these risks in readiness for when the funding stream starts in April 2010.
- 20 Discussions have taken place with the E A, who deal with the distribution of the Local Levy from the YRFDC and it has been indicate that the bid has received favour with the Finance Sub-Committee and is being recommended for approval to the full committee at their January 2010 meeting.

Consultation

- 21 Due to the speed with which the bid had to be submitted their was little time to consult with anyone, however if the bids are successful the normal consultation processes will be undertaken during the development of the projects.

Options

- 22 The options for the Executive Leader to consider are:

Option 1 To proceed with both the projects if the bids are successful.

Option 2 Not to proceed with the SWMP for Central York, if the bids are successful.

- Option 3** Not to proceed with the Westfield Beck, York – SUDS Project, if the bids are successful.

Analysis

- 23 **Option 1** provides the City with additional information on flooding and alleviates flooding at a known location, and hence is the recommended option.
- 24 **Option 2** would leave the City without valuable information on flooding which could have been gain at no cost to the Council.
- 25 **Option 3** would leave New Earswick vulnerable to flooding. Also it would give the EA little scope to grant consent to any future planning applications in Haxby, Wigginton and New Earswick, because of the existing potential for flooding.

Corporate Priorities

- 26 Delivery of these projects would contribute to the following Council Corporate Priorities:

Sustainable City - Implementing the measures in the SWMP for Central York would provide invaluable information on potential flooding locations which would assist in the planning of future developments or target area for work to reduce the risk of flooding, thereby removing all the associated impacts. The Westfield Beck Lagoon would directly improve the environment in several conurbations within the City and allow future developments to proceed.

Inclusive City – both projects will contribute to this priority by identifying or removing flooding situations which will make it easier for people to access opportunities and facilities around York, and elsewhere.

Healthy City – The identification of potential flooding locations or the removal of a known flood area, will provide a better quality of life for residents by the removal of property flooding and all the associate stress and upheaval that occurs during such events.

Implications

- 27 This report has the following implications:
- **Financial** There are no financial implications for the Council because if either or both bids are successful they will funded by grants from Defra or/and the EA.
 - **Human Resources (HR)** There are no HR implications for the Council.
 - **Equalities** There are no equalities implications for the Council.

- **Legal:** There are no Legal implications for the Council, apart from drawing up agreements with the land owner on the Westfield Beck project.
- **Crime and Disorder:** There are no Crime and Disorder implications for the Council.
- **Information Technology (IT):** There are no IT implications for the Council.
- **Property:** There are no property implications for the Council, but negotiation with a land owner will be needed on the Westfield Beck project.
- **Other:** Nil

Risk Management

- 28 In compliance with the Council's risk management strategy, the main risks associated with this report are considered to be as follows:

Strategic – If it is decided not to proceed with the Westfield Beck project, when funding is made available from Defra and the EA, there is a risk that this could lead to an inability for the EA to grant planning approvals in the Haxby, Wigginton and New Earswick areas of the City .

Physical - If it is decided not to proceed with these projects, when funding is made available from Defra and the EA, then there would be an unnecessary risk arising from flooding to property and infrastructure, with the consequential hazards to health and the disruption to life.

Risk Category	Impact	Likelihood	Score
Strategic	Low	Probable	8
Physical	High	Possible	12

The above scores indicate that at this point the risk need only be monitored, as they do not provide a real threat to the achievement of the objectives of this report.

Recommendations

- 29 That the Executive Leader agrees to progress the “SWMP for Central York” and the” Westfield Beck, York - SUDS Project”, if the bids for grant aid are approved by Defra and the EA, respectively.

Reason: Because these two projects will identify or mitigate, respectively, sites of flooding thereby relieving all the hardship that is attracted to such events.

Contact Details

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Report Approved

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Specialist Implications Officer(s)

There are no specialist officer implications

Wards Affected: Part or all of the following; Clifton, Heworth, Guildhall, All
Holgate, Acomb, Westfield, Dringhouses & Woodthorpe, Micklegate,
Fishergate, Fulford, Hull Road, Heslington, Heworth Without, Huntington &
New Earswick, Haxby & Wigginton, Skelton, Rawcliffe & Clifton Without.

For further information please contact the author of the report

Background Papers:

None

Annexes

Annex A – Plan of York showing general area to be studied.

Annex B – Location of Proposed Storage Lagoon, Westfield Beck.