CABINET COMMITTEE

6th March 2013

FLOOD MITIGATION WORKS ACROSS THE BROMSGROVE DISTRICT

Cllr Mike Webb, Leisure, Cultural
Services & Environment
Yes
Guy Revans, Head of Environmental
Services
All Wards
Various

1. SUMMARY OF PROPOSALS

- 1.1 Trash screens are often installed at or near the entrance to culverts for safety and also to prevent excess debris entering the culverts and causing blockages. While all grids pose some risk of blockages, the risk is lower (and the cyclic maintenance costs are less) than if a blockage is to occur within a culvert.
- 1.2 This proposal is to replace 10 vertical trash screens and to install one grid at a where there is currently nothing in place, with properly designed angled grilles in accordance with Environment Agency policy in association with associated flood alleviation works in order to minimise the potential of blockages and therefore reducing flood risk across the District.
- 1.3 North Worcestershire Water Management is investigating the prevalence of these grids across Bromsgrove District, and it may be that there are more in place than is currently known. It is therefore proposed that contingency funding is secured to replace a total of 16 grids and carry out associated flood alleviation works.
- 1.4 Figure 1 (appendices) highlight's the need for these replacements as there is a clear relationship between the presence of these vertical grids (where their location is known) and flooding nuisances.

2. **RECOMMENDATIONS**

The Cabinet is asked to RECOMMEND to Council that:

The Capital Programme 2013/14 is increased by £37,400k to fund the costs associated with provision of 11 grilles and associated works to be met from balances.

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The Capital Programme 2013/14 is increased by £17k to fund the costs associated with provision of contingency for 5 further grilles and associated works to be met from balances.

3. KEY ISSUES

Financial Implications

- 3.1 a) The cost of designing, producing and installing a correctly angled grille (made from a strengthened plastic material to deter theft) is approximately £3,400.
 - (b) The cost of this may vary with different suppliers and grille sizes, and it is possible that with a bulk order and combined site visits by one supplier the unit costs could be reduced through economies of scale.
 - c) The financial implications of not replacing these unsuitable trash screens will be in the region of £400 per flood event to have contractors on stand-by, often during weekends and evenings, and arranged at short notice in order to clear the vertical screens of debris to prevent flooding.
 - d) Between June and December 2012 there were at least 7 occasions where North Worcestershire Water Management had to arrange such a service (including over Christmas), costing approximately £3,000 in total for the clearance of vertical grids across the District (plus extra for other maintenance work).

Legal Implications

- 3.2 a) It could be argued that some of the vertical trash screens are contravening Section 25 of the Land Drainage Act 1991 by causing an obstruction to flow.
 - b) The replacement or installation of new grids may require prior land drainage consent (from the Environment Agency for main rivers, and from North Worcestershire Water Management for ordinary watercourses), although it is not envisaged that this will be an issue.
 - c) As Lead Local Flood Authority under the Flood & Water Management Act 2010, we have a duty to investigate flood incidents, and to work with riparian owners to reduce flood risk where possible. The ideal approach is working in partnership with riparian owners and other agencies in assisting to reduce

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flood risk without the need to serve notices under the Land Drainage Act 1991 or undertake works in default.

Service/Operational Implications

- 3.3 a) There are currently 10 known trash screens which cause maintenance issues in the District, 4 of which are owned by Bromsgrove District Council and with the majority of the remainder privately owned but affecting either a highway or multiple properties (please see table 1 in the appendices for location details and ownerships), and it hoped that joint funding between the District Council and riparian owners could be arranged to replace those which are privately owned or in shared ownership. Bromsgrove District Housing Trust are in the process of replacing 2 further grids which fall under their ownership. Where ownership is unknown or agreement cannot be reached with multiple owners easily, it is recommended that the Council steps in to make the necessary improvements.
 - b) The vertical trash screens which are currently in place require far more maintenance than properly designed angled grilles.
 - c) By replacing the existing vertical trash screens with proper angled ones less resources will be required for both proactive and re-active maintenance regimes allowing improved resilience to flood risk management matters.
 - d) It is also recommended that a proper grille is fitted to the culvert entrance in St. Chad's recreation ground (under New Road), Rubery, where there is currently no protection in place and the culvert is known to block.
 - e) It is extremely likely that more of these vertical grids or locations requiring a culvert grille will emerge as routine visits are made around the district, therefore it is suggested that there is contingency funding for a further 5 locations.

Customer / Equalities and Diversity Implications

3.4 Flooding has an adverse impact upon land and property owners / occupiers. Reducing flood risk is in the best interest of everyone.

4. RISK MANAGEMENT

4.1 Best practice guidance will be followed to ensure the replacement grilles are designed to Environment Agency specification and do not

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pose any increased risk. There is no foreseen increase in risk associated with the actual replacing of the vertical trash screens.

- 4.2 There is a duty to ensure that watercourses are kept free of obstructions under the Land Drainage Act 1991, and as such leaving vertical trash screens in place where they accumulate debris could be contravening the Act.
- 4.3 The risk of flooding from blockages greatly increases with a vertical trash screen compared to a properly designed and angled grille.

The greatest risk comes from doing nothing.

5. APPENDICES

Appendix 1 - Figure One – Locations of known vertical trash

screens & locations known to have flooded

between June and December 2012

Appendix 2 The figures below illustrate a few examples of

vertical trash screens in Bromsgrove District where

replacement grilles are recommended.

6. BACKGROUND PAPERS

Environment Agency (2009) <u>Trash and Security Screen Guide</u> Environment Agency, Bristol. Available via:

https://publications.environment-

<u>agency.gov.uk/skeleton/publications/ViewPublication.aspx?id=b966925</u>b-4122-46b8-afe9-affb2b79bdb6

7. <u>AUTHOR OF REPORT</u>

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