

HERTFORDSHIRE COUNTY COUNCIL

**GROWTH, INFRASTRUCTURE, PLANNING AND THE
ECONOMY CABINET PANEL**

THURSDAY, 5 JULY 2018 AT 10:00 AM

**NATURAL FLOOD MANAGEMENT PROJECT, “SLOW THE FLOW” IN
HERTFORDSHIRE 2017/18 TO 2020/21 – YEAR 1 PROGRESS REPORT**

Report of the Chief Executive

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Executive Member: Derrick Ashley, Growth, Infrastructure, Planning and the
Economy.

Local Members: Nick Hollinghurst, Tring
David Williams, Harpenden North East
Annie Brewster, Harpenden Rural
Teresa Heritage, Harpenden South West

1. Purpose of report

1.1. To advise the Cabinet Panel of progress on the natural flood management (NFM¹) project funded by the Thames Regional Flood and Coastal Committee (TRFCC) in Hertfordshire.

2. Summary

2.1 The County Council has secured £250k of funding from the TRFCC to explore the opportunities presented by NFM techniques to reduce the instances and impact of surface water flooding in the county. This 3 year project running from 2017 to 2020 is using two pilot study areas, Long Marston and Harpenden to test and evaluate the effectiveness of NFM in reducing flood risk.

2.2 This project has now been running for just under 1 year and progress has been made on both pilot areas. The project has focused in year 1 on establishing relationships with key local stakeholders as well as on looking at options to alleviate and mitigate flood risk within both Long Marston and Harpenden.

3. Recommendation

3.1 That the Cabinet Panel notes the content of the report.

¹ NFM is defined as the alteration, restoration or use of landscape features as a novel way of employing natural processes to reduce or delay flood risk.

4. Background

4.1 Following the implementation of the Flood and Water Management Act 2010 the county council became the designated Lead Local Flood Authority (LLFA) for Hertfordshire. This statutory role conferred upon the County Council the responsibility to manage flood risk arising from surface water and groundwater sources. Flood risk management arising from main rivers remained with the Environment Agency. The statutory duties and responsibilities that come with the LLFA designation relate to improving the local understanding and management of flood risk in in the county and include:

- The production and implementation of a Local Flood Risk Management Strategy.
- The development and maintenance of a register of significant flood risk assets.
- A requirement to investigate flooding incidents that the LLFA is aware of to the extent that is necessary. These are referred to as section 19 investigations as this is the clause in the 2010 act that requires them to be undertaken.

4.2 Managing flood risk from surface water in Hertfordshire is challenging due to the dispersed nature of the flooding that occurs. Although overall a significant number of properties are at risk in the county these are spread over a large number of locations and relatively few properties are impacted in each instance of flooding. The most recent significant flooding events in the county occurred in June and September 2016 with 165 properties flooded internally across 77 separate residential streets. Flooding at these properties has been confirmed by questionnaire responses received from residents following these flood events. They may not represent the full extent of flooding across the county on these dates as some residents will not have responded or may have chosen not to report the flooding to the LLFA.

4.3 The “Slow the Flow” project will identify opportunities where NFM may be able to play a role in reducing surface water flood risk to residential and commercial properties in the county. The overall aim is to reduce the numbers of properties affected or to reduce the scale and frequency of events arising from surface water flooding. The project is supported by the Thames Regional Flood and Coastal Committee (TRFCC) with £250k funding over three years beginning in 2017/18. An additional £90k of funding is being provided by the County Council from the existing flood risk management budget.

4.4 The project has six distinct objectives which are as follows:

1. To look at the range of natural flood management techniques and, through the use of pilot areas, determine their

appropriateness to manage surface water flood risk in Hertfordshire.

2. To deliver a reduction in surface water flood risk in two pilot areas, Long Marston and Harpenden.
3. To work with land owners and public sector partners to secure their commitment to natural flood management and explore the implementation mechanisms and barriers to determine the feasibility of widespread adoption of this approach.
4. To develop and deliver an evaluation programme for natural flood management in Hertfordshire to ascertain its suitability for widespread application in the delivery of surface water flood mitigation.
5. To develop and explore how surface water catchments should be assessed to determine if natural flood management techniques are suitable for the management of surface water flows.
6. To develop within strategic partners the knowledge and expertise to specify and deliver NFM interventions on behalf of the county council in the future.

5. The NFM project in Hertfordshire

- 5.1 To look at how NFM is using two pilot areas in Hertfordshire, Long Marston in Dacorum, a predominantly rural catchment with an impact from both river flooding and surface water runoff and Harpenden in the district of St Albans, to explore how NFM could be implemented within an urban area to manage surface water runoff. Both of these locations have a history of flooding and have suffered from flooding incidents between 2013 and 2016. Both locations have completed section 19 flood investigations and these provide useful background data on why flooding has occurred in the two locations.
- 5.2 Long Marston in Dacorum suffered flooding on the 7th February 2014 with internal damage to one commercial and at least five residential properties. The results of flood modelling in Long Marston have indicated that there is potential to reduce the risk of flooding to approximately 20 properties within the village. This modelling takes account of the impact that climate change could have on future flooding events and looks at the potential for flooding up to a 1 in 100 year rainfall event.
- 5.3 Harpenden has experienced flooding in a number of locations in the town over a long period with the latest events in June and July 2014 with flooding to two commercial properties and one residential property in Southdown Road as well as to several surrounding roads. In addition flooding in July 2015 affected a number of properties including new location in Leyton Road. Flood modelling carried out in 2013 has shown that there is potential to reduce the risk of flooding to approximately 20 to 30 properties within Harpenden.
- 5.4 The NFM project will involve a diverse range of partners both internal and external to the county council. Key internal partners for both pilot

project areas will be Hertfordshire Highways and the Countryside Management Service. External partners will include; the Environment Agency; Cranfield University (for the monitoring and evaluation programme); Thames RFCC and landowning representative bodies such as the Country Land and Business Association (CLA) and the National Farmers Union (NFU). Appropriate local partners for the two pilot study areas will also be invited to participate including the district authorities, the relevant town and parish councils, local residents and landowners.

5.5 The outcomes from the NFM project are expected to be:

- A reduction in the numbers of properties at flood risk in Long Marston and Harpenden.
- Direct benefit to infrastructure in the pilot areas, including roads, as a result of reduced local flood risk.
- Additional benefits from implemented NFM projects on land management, biodiversity and ecology.
- An increased knowledge and capability within HCC to specify and deliver NFM projects to reduce flood risk to property.
- A number of demonstration projects of NFM methods applied to appropriate locations across the county.
- A tested evaluation tool to be applied to other catchments in the county to determine the appropriateness of NFM methods to reducing flood risk.
- A report to the Thames RFCC on the outcomes from the “Slow the Flow” project in Hertfordshire.

6. NFM Project Progress – Year 1

6.1 Activity on the NFM project in year 1 has focused on getting the appropriate resources in place, establishing working relationships with local stakeholders and developing and evaluating project options for implementation. The main thrust of activity has been on looking at Long Marston as local stakeholder relationships were established and already in place at the commencement of the project and it is felt that there could be some early implementation at this location. Activity in Harpenden has focused on discussions with key stakeholders to apprise them of the project and to set up a local flood working group. A dedicated project officer was appointed in September 2017 to accelerate activity and progress on the NFM project.

6.2 Actions undertaken in Long Marston are as follows:

- Ongoing liaison with the local flood management group established by the Parish Council.
- A series of one to one discussions with local landowners to gauge their interest and willingness to participate in NFM schemes on their land.
- Liaison with key local stakeholders including Dacorum Borough Council, The Environment Agency, the Canal and River Trust and the River Thames Catchment Management group.
- Direct engagement with local residents on flood risk management options.
- Development of eleven NFM options for Long Marston, those being explored are shown in the maps in Appendix 1.
- Development of a maintenance programme for the main ditch network in and around Long Marston for discussion with local landowners and Hertfordshire Highways.

6.3 Actions undertaken in Harpenden are as follows:

- A series of one to one discussions with local landowners to gauge their interest and willingness to participate in NFM schemes on their land.
- Liaison with key local stakeholders including St Albans City and District Council, The Environment Agency, Harpenden Town Council and Affinity Water.
- Development of seven NFM options for Harpenden, those being explored are shown in the maps in Appendix 2.
- Discussions with Hertfordshire Highways to look at contribution from recent highway drainage improvement works undertaken in the town.

6.4 Activity to date in Long Marston is programmed to be discussed with the local flood management group in July 2018 where the project options are expected to be finalised prior to an exhibition and drop in session for local residents which is programmed for September/October 2018. Activity in Harpenden will be brought together with the production of a project options report and this will be presented to and discussed with local stakeholders. The aim is also to establish a local group to take forward the project in Harpenden by the end of October 2018.

7. Financial Implications

7.1. The county council has been allocated £250k of funding from the Thames RFCC to be split over a 3 year period, 2017/18 to 2019/20. Funding will come into the county council in three payments, £50k in 2017/18, £100K in 2018/19 and £100k in 2019/20. In addition the county council has allocated £90k for this project from the flood risk management budget that is allocated to support projects where the

county council is in receipt of Thames RFCC funding. This funding will be split over four years 2017/18 to 2020/21 and will give a total project budget of £340k. The funding from the county council is spread over a 4 year period, one-year longer than that from the Thames RFCC, to enable the learning derived from this project to be locally disseminated within HCC and to partners bodies and to ensure that communities in the two pilot areas are properly supported to take on responsibility for ongoing management and maintenance of any implemented NFM projects.

- 7.2. As NFM projects are identified it is anticipated that additional funding may be secured from a variety of sources. It is not possible to identify the source or value of this additional funding at the outset of the project, but it is anticipated that it could be for measures such as ongoing farm payments for flood risk management activity on landholdings or for river management measures which could be secured from local landowners, the Environment Agency or other partners.

8. Equalities Implications

- 9.1 When considering proposals placed before Members it is important that they are fully aware of, and have themselves rigorously considered the equalities implications of the decision that they are taking
- 9.2 Rigorous consideration will ensure that proper appreciation of any potential impact of that decision on the County Council's statutory obligations under the Public Sector Equality Duty. As a minimum this requires decision makers to read and carefully consider the content of any Equalities Impact Assessment (EqIA) produced by officers.
- 9.3 The Equality Act 2010 requires the Council when exercising its functions to have due regard to the need to (a) eliminate discrimination, harassment, victimisation and other conduct prohibited under the Act; (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. The protected characteristics under the Equality Act 2010 are age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief, sex and sexual orientation.
- 9.4 No EqIA was undertaken in relation to this matter as no equality implications have been identified in relation to this report and Panel will make no decision with regard to its contents.

Background Information

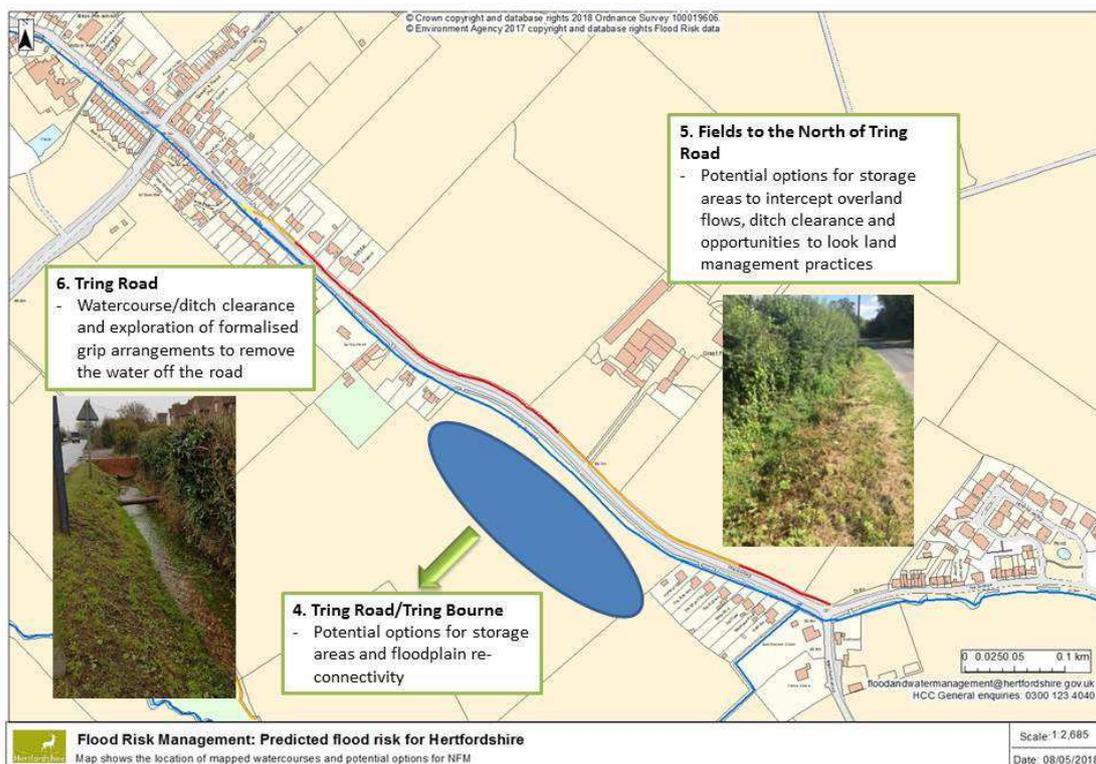
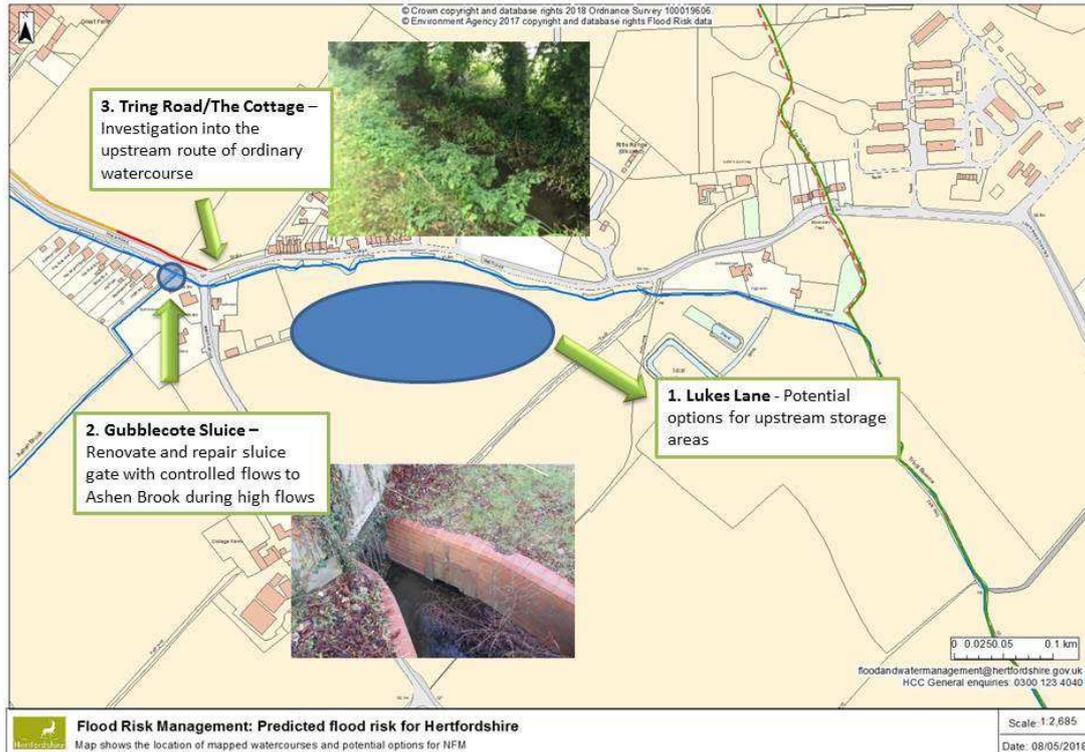
Hertfordshire County Council, Environment, Planning & Transport Cabinet Panel, 30 Jun 2017, Agenda item 5, Natural flood management project, “slow the flow” in Hertfordshire 2017/18 to 2020/21.

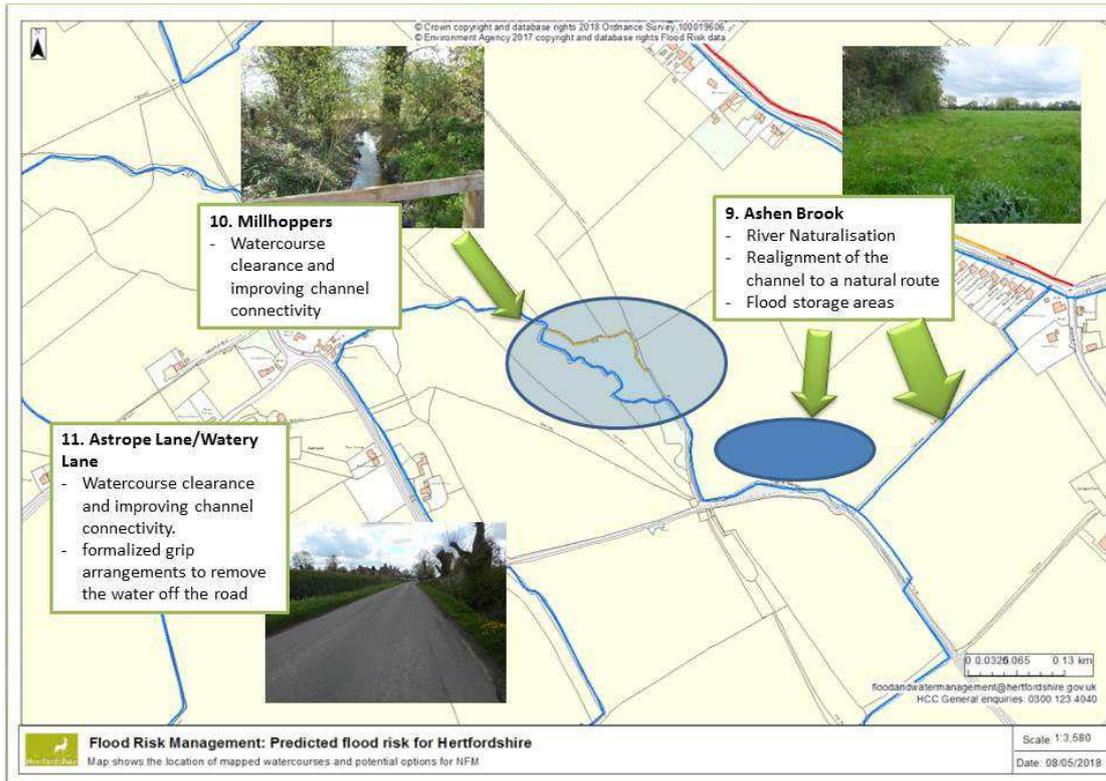
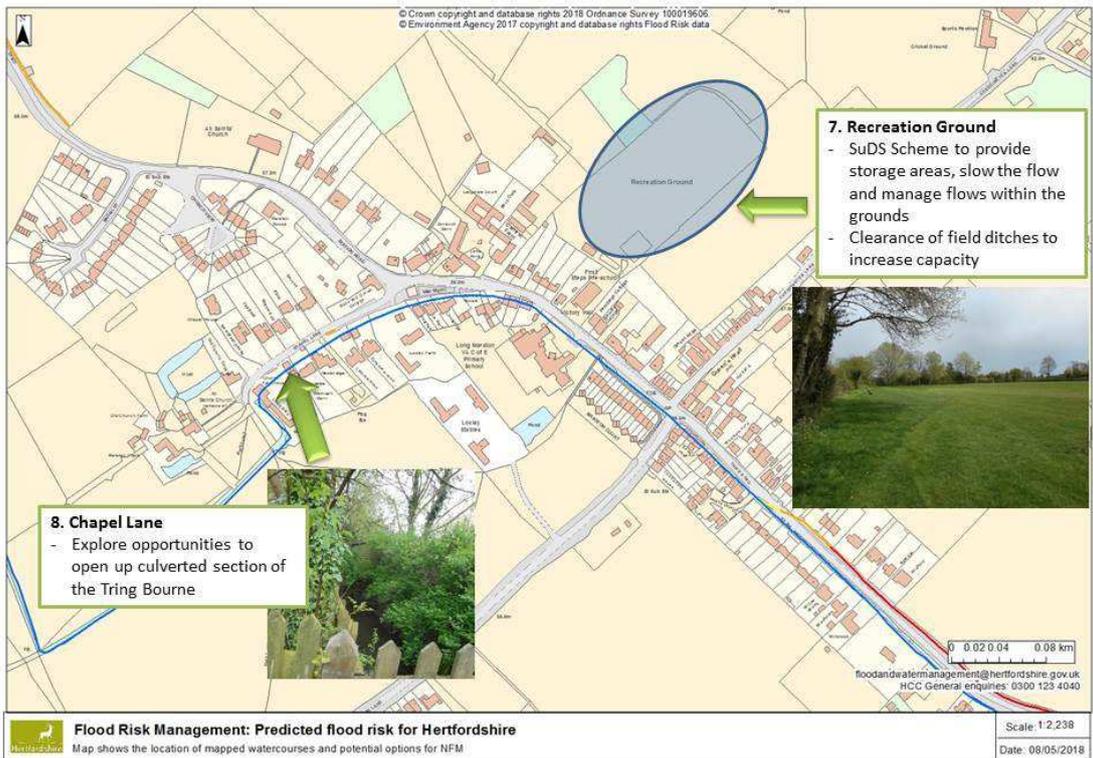
Hertfordshire County Council, Flood Investigation Report - Long Marston, Hertfordshire. November 2014.

Technical Assessment Report to support Section 19 Flood Investigation - Long Marston, Hertfordshire, September 2014.

Hertfordshire County Council, Flood Investigation Report – Leyton Road, Harpenden. July 2016.

Appendix 1 – Long Marston Options Maps





Appendix 2 – Harpenden Options Maps

