

HAMPSHIRE COUNTY COUNCIL

Decision Report

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| Decision Maker: | Executive Member for Environment and Transport |
| Date: | 19 September 2017 |
| Title: | Project Appraisal: A32 Farringdon Flood Alleviation Measures |
| Report From: | Director of Economy, Transport and Environment |

Contact name: Paul Prowting

Tel: 01962 845479

Email: paul.prowting@hants.gov.uk

1. Executive Summary

- 1.1 The purpose of this paper is to provide details of a proposed scheme to improve the management of both surface and groundwater conveyed by ordinary watercourses adjacent to the A32 highway through the village of Lower Farringdon, and by a main river to Chawton village.
- 1.2 In the winter of 2013/14, groundwater rose in Lower Farringdon and mixed with surface water run-off from extensive rainfall, discharged onto the A32, and flowed towards the Lower Farringdon crossroads. Flooding lasted from the beginning of February 2014 to the end of April 2014. During this flood incident, approximately 18 properties or their curtilage were directly impacted with 10 internally flooded, and the A32 was closed for 2 months. This caused significant access and travel disruption to local residents and businesses.
- 1.3 Further flooding issues downstream of Lower Farringdon included flood waters effectively cutting off access to Chawton House, and surface water infiltration to combined sewer overflows in Chawton resulting in impacts on domestic sewage systems from the reduction in carrying capacity. Eight homes in the Chawton area were also affected by foul water disruption.
- 1.4 Following a series of investigations and assessments of the flood event, the County Council commissioned consultants to undertake a feasibility study to determine the causes of the flooding and investigate potential measures to alleviate flooding in Lower Farringdon and Chawton.
- 1.5 A package of initial measures for Lower Farringdon and Chawton has now been developed for implementation in the short to medium term. It is proposed that the work is undertaken in two distinct phases.
- 1.6 Phase 1A would seek to improve the capacity and conveyance of the southern (upstream) part of the existing watercourse south from Mary Lane to Woodside Lane, north of the crossroads in Lower Farringdon.

- 1.7 Phase 1B would involve extensive groundworks to improve the remaining downstream length of the existing winterbourne from Woodside Lane to Chawton and Lumbry Park. The objective would be to enhance the capacity of the 'main river' to manage surface water flows during periods of high groundwater levels.
- 1.8 Subject to weather and any unforeseen events, it is planned to carry out Phase 1A by the end of 2017, and undertake Phase 1B in spring and summer 2018.
- 1.9 Once implemented, Phase 1 measures will improve containment of surface and groundwater, and reduce the frequency of flooding on the A32. However, they would be insufficient on their own to fully manage the risk of flooding of a magnitude similar to that which occurred in 2013/14. It is therefore intended that the implementation of Phase 1 will also inform the development of potential longer term measures which, subject to further more detailed work, approvals and funding, will be considered for a future phase or phases.

2. Background

- 2.1 Lower Farringdon is situated on the A32 highway approximately 4km south of Alton and 2.5km south of the village of Chawton. The A32 is a strategic north/south route linking the A31 at Alton with the A272 at West Meon and the M27 at Fareham.
- 2.2 Lower Farringdon and Chawton, and the location of the Phase 1A and 1B measures outlined in this project appraisal, fall within the catchment area of Caker Stream (River Wey) and is part of the River Thames basin. The total area of the catchment is in the region of 88km².
- 2.3 Following many weeks of sustained exceptional rainfall between September and December 2000, Lower Farringdon (Thames Region) suffered severe flooding which resulted in the A32 being closed and 16 homes being evacuated in December 2000. Flooding was widespread and long standing, but eventually waters receded in May 2001. However, in 2003, the 12 homes damaged by the flooding in Chase Field were demolished.
- 2.4 In the winter of 2013/14, groundwater rose again in Lower Farringdon and mixed with surface water run-off from extensive rainfall, discharged onto the A32, and flowed towards the Lower Farringdon crossroads. Flooding lasted from the beginning of February 2014 to the end of April 2014. During this flood incident, approximately 18 properties or their curtilage were directly impacted with 10 internally flooded (mostly cellar), and the A32 was closed for 2 months. This caused significant access and travel disruption to local residents and businesses.
- 2.5 Further flooding issues downstream of Lower Farringdon included flood waters effectively cutting off access to Chawton House, and surface water infiltration to combined sewer overflows in Chawton, resulting in impacts on

domestic sewage systems from the reduction in carrying capacity. Eight homes in the Chawton area were also affected by foul water disruption.

2.6 Given the effect of the flood event on residents, businesses, and infrastructure it was felt that further investigation was required. The County Council therefore commissioned consultants to undertake a feasibility report to determine the causes of the flooding, and investigate potential measures to alleviate flooding in Lower Farringdon.

2.7 The feasibility report made three key recommendations:

- Ensure the existing drainage systems are functioning as well as possible by undertaking maintenance / clearance works;
- Progress the design process to identify the most effective package of potential works including ditch upgrades, culvert upgrades, and water storage areas; and
- Identify and advise on the most suitable property level resilience measures for those properties affected by internal flooding.

2.8 Building on these recommendations, a package of initial measures for Lower Farringdon and Chawton has now been developed for implementation in the short to medium term. It is proposed that this work is undertaken in two distinct phases, Phase 1A and 1B, with potential longer term measures being explored for a possible future implementation phase.

3. Finance

3.1 In September 2016, approval was given by the Executive Member for Environment and Transport for the inclusion of schemes in the County Council's Flood Risk and Coastal Defence (FRCD) programme, and identified as high priority, in a 'Main Programme' with the intention that these should be the immediate focus for the County Council. Lower Farringdon and Chawton are included in the 'Main Programme' and it is proposed that the costs of the works outlined in this report are met from the Flood Risk and Coastal Defence (FRCD) Programme budget.

3.2 The total estimated costs for Phase 1A and 1B is set out in the table below.

| 3.3 | <u>Estimates</u> | <u>£'000</u> | <u>% of total</u> | <u>Funds Available</u> | <u>£'000</u> |
|-----|------------------|--------------|-------------------|--|--------------|
| | Design Fee | 15 | 5 | Flood Risk and Coastal Defence Programme | 292 |
| | Client Fee | 2 | 1 | | |
| | Supervision | 25 | 9 | | |
| | Construction | 250 | 85 | | |
| | Land | 0 | | | |

- 4.5 Once implemented, Phase 1 measures will improve containment of surface and groundwater, and reduce the frequency of flooding on the A32. However, they would be insufficient on their own to fully manage the risk of flooding of a magnitude similar to that which occurred in 2013/14. It is therefore intended that the implementation of Phase 1 will also inform the development of potential longer term measures which, subject to further more detailed work, approvals and funding, will be considered for a future phase or phases.
- 4.6 The objective of any future phase would be to provide measures capable of managing a volume of combined surface and ground water flows similar to that which occurred in 2013/14 enabling the A32 to remain open. Phase 1 will assist in that by providing an up-to-date pipe condition and topographical survey of newly maintained ditch dimensions and levels.
- 4.7 Subject to weather and any unforeseen events, it is planned to carry out Phase 1A by the end of 2017, and undertake Phase 1B in spring and summer 2018.

5. Community Engagement

- 5.1 Quarterly Multi-Agency meetings with the Parish Council, East Hampshire District Council, Environment Agency, and Thames Water have been held to date, in addition to regular briefings with the Local Member, to inform them of the investigations, studies and reports published. The Local Member fully supports the proposed works outlined in this report.
- 5.2 A communications plan will ensure the dissemination of information to the community, residents and landowners where access is required. Public notices will also be displayed leading up to and during the works.

6. Statutory procedures

- 6.1 Ordinary Watercourse Land Drainage Consents and Environmental Permits will be obtained where necessary. There is a potential requirement for planning permission for more significant engineering works on Phase 1B.

7. Land requirements

- 7.1 Access to private properties and land for survey and flood alleviation works will be required. Some land, particularly in regard to the Phase 1B works, may be required to act as a storage compound for works equipment.

8. Maintenance Implications

- 8.1 Following the Phase 1 works there may be additional ongoing costs from an enhanced maintenance regime for highway assets in known drainage restriction spots. It is anticipated that these costs could be substantially reduced or removed if longer term measures are brought forward in a future phase of works.

- 8.2 It is recognised that maintenance of the watercourse should be undertaken by riparian owners. However, significant lengths of the drainage system have not been maintained for many years and there are some areas where no formal drainage exists. There is therefore a significant amount of improvement work required which is beyond the scope of riparian owner responsibility.
- 8.3 The intention would be to inform each riparian owner that work is to be undertaken on their behalf to re-establish a fully functioning watercourse. The riparian owner would have responsibility for maintaining the watercourse in this condition in future. For those riparian owners that are adjacent to the A32, and where access to maintain the ditches would be from the highway, clear guidance would be issued on how maintenance works should be undertaken in relation to the management of traffic.
- 8.4 Once the works are completed they will be added to the Flood Asset Register. This will ensure that the importance of the assets is recognised, that adequate maintenance is scheduled, and that more weight is given to any enforcement action that may be required in future. The requirement for riparian owners to fulfil their duties in maintaining the ditches will be recommended for inclusion in a local flood action plan so that there is local scrutiny for these activities.

9. Key Risks

- 9.1 The future success of the works undertaken in Phase 1 will be dependent upon riparian owners undertaking regular maintenance works. The County Council expects riparian owners to fulfil their duties. However, based on past experience and the neglect of many ordinary watercourses and main rivers, it is anticipated that the County Council and the Environment Agency may need to take enforcement action or carry out maintenance, and re-charge the riparian owner.
- 9.2 Completion of Phase 1A (upstream) works before Phase 1B (downstream) is not considered likely to cause any flooding issues from any increased water flow as the majority of the work is to increase holding capacity of the ditch system.
- 9.3 It is recognised that in regard to Phase 1B works, potential issues including ecological concerns about habitat clearance and achieving landowner agreement to access the land to carry out works could delay these works.

10. Recommendations

- 10.1 That the Executive Member for Environment and Transport approves the Project Appraisal for the A32 Farringdon Flood Alleviation Measures as outlined in this report.
- 10.2 That approval is given to procure and spend and enter into necessary contractual arrangements to implement the proposed flood alleviation measures as set out in this report, at an estimated cost of £292,000 to be funded from the Flood Risk and Coastal Defence Programme.
- 10.3 That authority to make the arrangements to implement the scheme, including minor variations to the design or contract, be delegated to the Director of Economy, Transport and Environment.

CORPORATE OR LEGAL INFORMATION:**Links to the Strategic Plan**

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| Hampshire maintains strong and sustainable economic growth and prosperity: | yes |
| People in Hampshire live safe, healthy and independent lives: | yes |
| People in Hampshire enjoy a rich and diverse environment: | yes |
| People in Hampshire enjoy being part of strong, inclusive communities: | yes |

Other Significant Links

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| Links to previous Member decisions: | |
| <u>Title</u> Executive Member for Economy, Transport and Environment - Flood Risk and Coastal Defence Programme - Priorities (7526) | <u>Date</u> 15/9/16 |
| Direct links to specific legislation or Government Directives | |
| <u>Title</u> Flood and Water Management Act Land Drainage Act | <u>Date</u> 2010 1991 |

Section 100 D - Local Government Act 1972 - background documents

The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)

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| <u>Document</u> | <u>Location</u> |
| A32 Farringdon Feasibility Report | Hantsfile ref doc number HF00001359125 |

IMPACT ASSESSMENTS:

1. Equality Duty

1.1. The County Council has a duty under Section 149 of the Equality Act 2010 ('the Act') to have due regard in the exercise of its functions to the need to:

- Eliminate discrimination, harassment and victimisation and any other conduct prohibited under the Act;
- Advance equality of opportunity between persons who share a relevant protected characteristic (age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, gender and sexual orientation) and those who do not share it;
- Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

Due regard in this context involves having due regard in particular to:

- a) The need to remove or minimise disadvantages suffered by persons sharing a relevant characteristic connected to that characteristic;
- b) Take steps to meet the needs of persons sharing a relevant protected characteristic different from the needs of persons who do not share it;
- c) Encourage persons sharing a relevant protected characteristic to participate in public life or in any other activity which participation by such persons is disproportionately low.

1.2. Equalities Impact Assessment:

The proposals seek to build resilience against flood risk, which should be beneficial to all residents and have no disproportionate impact upon those with protected characteristics.

2. Impact on Crime and Disorder:

2.1. The proposed ground works and development of a flood alleviation scheme has no impact on Crime and Disorder.

3. Climate Change:

a) How does what is being proposed impact on our carbon footprint / energy consumption?

The proposals seek to reduce the high demand for resources including energy that is typical of individuals, communities, and risk management authorities impacted by a flood emergency and / or in a recovery phase.

- b) How does what is being proposed consider the need to adapt to climate change, and be resilient to its longer term impacts?

The outcomes of this work support communities to become more resilient to flooding events, and considers the effects of extreme weather events.

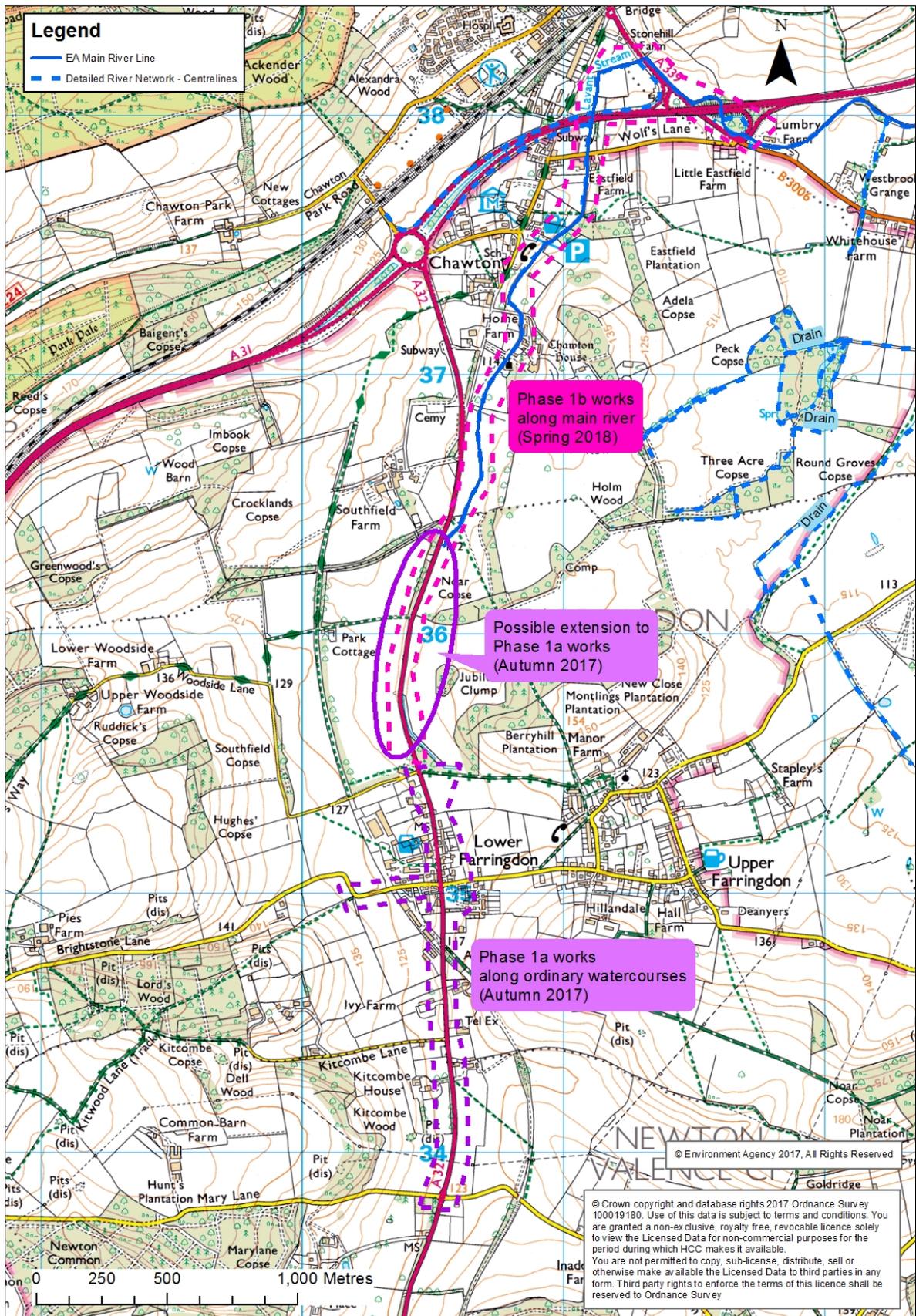


Figure 1 - Plan of Phase 1 works