

HAMPSHIRE COUNTY COUNCIL

Decision Report

Decision Maker:	Executive Member for Environment and Transport
Date:	22 July 2016
Title:	Hambledon Phase 2 Flood Alleviation – Project Appraisal Update
Reference:	7595
Report From:	Director of Economy, Transport and Environment

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1. Executive Summary

- 1.1. The purpose of this paper is to provide an updated Project Appraisal for the Hambledon Phase 2 Flood Alleviation scheme reflecting the projected financial outturn on completion of the current construction phase.
- 1.2. Work on Hambledon Phase 2 Flood Alleviation Scheme commenced in May 2015. The principal feature of the scheme is the provision of a large culvert beneath West Street and East Street over a length of approximately 1.5km. The anticipated date for completion is October 2016.
- 1.3. Notwithstanding the rising groundwater and flood warning notices in the winter, the scheme has progressed well. However, it has not been possible to minimise a number of risks identified in the project risk register, and the extent of some areas of work itemised in the contract have increased due to unforeseen events, and as a result of re-measurement.
- 1.4. Every opportunity is being taken to reduce the impact that these changes are having upon the overall cost of the project. Compensatory savings are being pursued, alternative, lower cost options are being investigated, and additional contributions from partners are being explored. However, at this stage, it is anticipated that the overall cost of the scheme as set out in the original Project Appraisal, dated 11 July 2014, will be exceeded by approximately £0.35m or 9%.
- 1.5. This Project Appraisal updates the position as previously reported on 11 July 2014 and reflects actual and forecast expenditure on the scheme during the construction phase. However, in light of the construction period that still remains, present uncertainties, and proposed actions to manage these, this

report is an interim position statement and a further update will be prepared as necessary in order to provide further detail on issues that remain unresolved at this time.

2. Background

- 2.1. During the winter of 2013 / 2014, Hambledon suffered damaging and prolonged flooding causing major disruption to the community, properties, and businesses, the closure of the main roads through the village and inundation of the foul sewer system. More extensive damage and disruption was only averted by the combined efforts of the County Council, Emergency Services, Armed Services, Winchester City Council, Hambledon Parish Council, Southern Water and the local Flood Action Group. The village has a long history of groundwater flooding with events occurring in 2012/2013, 2002/2003, 2000/ 2001, 1994/1995 and in the 1960s.
- 2.2. In consultation with its key partners, the County Council determined to support the delivery of an overall flood alleviation scheme for Hambledon. So that work could begin on flood alleviation measures, approval was given in October 2013 to a first phase of improvements to the stream, downstream of the village. Due to flood events in 2013 / 2014, this work was undertaken in autumn 2014.
- 2.3. A full business case for the remaining elements of the overall flood alleviation scheme, Phase 2, was submitted to the Environment Agency in March 2014 seeking national Flood Defence Grant in Aid (FDGiA) funding.
- 2.4. On 11 July 2014, the Executive Member for Economy, Transport and Environment approved a project appraisal for the Hambledon Phase 2 Flood Alleviation Scheme up to the value of £3.89m.
- 2.5. Investigations (radar surveys and slot trenches) to establish the location of utilities and the make up of the ground were on-going at this time. Hambledon is served by British Telecom (BT), Portsmouth Water (PW), Scottish and Southern (SSE), and Southern Water (SW) for sewage. All services are within the ground. In order to reduce the diversion costs resulting from a clash between the proposed flood culvert and underground services, the most cost effective option to accommodate the culvert underneath as many of the utilities as possible was adopted. In order to support the value engineering approach, and to inform the detailed development and buildability options for the scheme, Early Contractor Involvement was secured. As a result of this, the proposed use of precast concrete culverts, which are heavy and require large machinery, was abandoned in favour of twin wall plastic pipes which are 94% lighter and easier to install within the tight confines of the village. The efficiencies achieved through this were partly offset by the requirement for deep excavations and the resultant increase in the construction period from 52 to 60 weeks.

- 2.6 Extensive pre-tender liaison including face to face meetings, were held with each of the utility companies to discuss the works and their anticipated programmes, and to share information collected from the investigations. BT, PW and SSE were commission in advance of the main contract being awarded with the intention to avoid delays once the main works started.
- 2.7. In October 2014, Defra confirmed an award of £1.4m FDGiA. Due to a recalculation of Defra's contribution, this was £40,000 less than originally indicated and as set out in the July 2014 Project Appraisal. Following this announcement, and the award of £0.1m contribution from Winchester City Council, the scheme was further developed and tenders were invited in January 2015. The pre-tender estimate for the main contract was £3.393m, £0.15m above the Project Appraisal estimate. This was due to additional provisional sums to provide temporary utilities and yard gullies to serve properties pumping groundwater flooding into the highway.
- 2.8. The contract was let under the SE7 Regional Framework to Mildren Construction Limited in April 2015 in the sum of £3,490,627.55. With the addition of other costs including fees and utility costs, the total value of the project was estimated at this stage to be in the region of £4.05m. Although significant risks had been identified in the project risk register, because of investigative surveys and other advanced work, there was a good level of confidence that these could be adequately managed within the construction phase and that the budget approved at Project Appraisal would, within acceptable tolerances, be sufficient.
- 2.9. Work on Hambleton Phase 2 Flood Alleviation Scheme commenced in May 2015. The principal feature of the scheme is the provision of a large culvert, between 900mm and 1200mm in diameter, beneath West Street and East Street over a length of approximately 1.5km. This part of the scheme started in June 2015 and has involved trench excavations up to 4m in depth, the provision of new foul sewer, and the realignment and replacement of other services to accommodate the large pipe. The work has also entailed the implementation of a traffic diversion plan to avoid the necessary road closures and temporary accommodation works required to minimise disruption to the local community and businesses.
- 2.10. Notwithstanding the rising groundwater and flood warning notices in the winter, the scheme has progressed well. Efficiencies in the delivery of the work have been achieved by the contractor and the project team, and the expectations of key partners, the local community, and businesses have been effectively managed. However, it has not been possible to minimise a number of risks identified in the project risk register, and the extent of some areas of work itemised in the contract have increased due to unforeseen events, and as a result of re-measurement.
- 2.11. Based on the projected outturn costs at completion of the construction phase, it is currently estimated that the overall cost of the scheme as set out in the original Project Appraisal, dated 11 July 2014, will be exceeded by approximately £0.350m or 9%.

- 2.12. The key areas where the project has incurred these additional costs includes work with statutory undertakers, increased provision of drainage infrastructure within the highway to accommodate pumping-out from properties, and extended traffic management. The project has involved detailed coordination with SW, PW, SSE and BT. However, it has proved impossible to substantially reduce the length of both SW and PW apparatus requiring realignment or replacement. Due to the confines of the site, the working space to install the large diameter pipe alongside SSE's high voltage cables has been insufficient and, for safety reasons, the cables have had to be moved. Despite early contact with the utility providers, this work has also caused prolongation and therefore additional cost to the contract. Discussions with the statutory undertakers are taking place to establish the potential for 'claw back', whether there is a case for 'betterment' and therefore contribution to the costs, and to minimise inputs in the remaining stages of work.
- 2.13. Following the 2013 / 2014 flood event, the number of properties employing property level resilience, particularly involving the installation of pumps, has increased substantially. This provision is aimed at reducing the risk of flooding by maintaining groundwater just below ground floor level and pumping this water out onto the highway. As this contributes significantly to the volume of flows in the street, the risk of surface water flooding, and the need to close routes to traffic, the overall scheme has sought to manage this with additional drainage infrastructure.
- 2.14. A range of specialist investigations and surveys were undertaken during the development of the scheme in order to understand the ground conditions and reduce the risk at the construction stage. Despite these precautions, and unusually given the nature of the site, contamination has been detected along a significant length of the flood culvert. Work is now being undertaken with the contractor and their waste management supplier to establish the extent of excavated material that may be affected, and options to manage the risks and minimise potential additional costs where this is unavoidable . A further update will be provided on this matter as necessary to confirm the outcome.
- 2.15. The implementation of the scheme has required the establishment of an extensive network of diversion routes, provision of alternative public transport arrangements, and temporary surfacing to provide safe access to the infant school for parents and children. These were an essential part of the management of the construction phase and of the commitment to minimising the impact of the work on local residents and businesses made by the County Council and its partners. Further to an increasing number of incidents in which drivers ignored the signed routes, thus leading to problems for the local community and the contractor, additional measures were implemented in liaison with the areas traffic management team and the police. Working closely with First, a bus service has been maintained throughout the duration of the project. This has entailed the provision of a shuttle bus, banksman, and other arrangements on site to manage the service during road closure periods.

- 2.16. Every opportunity is being taken to reduce the impact that these changes are having upon the overall cost of the project. The contractor is being fully engaged in examining the potential for efficiencies, compensatory savings, and adopting lower cost options during the remaining stages of the works. Additional contributions from partners will also be explored.
- 2.17. The table in section 3 below sets out the original and updated costs reflecting actual project expenditure, and the current impact of the additional costs incurred. In light of the construction period that remains, and the present uncertainties identified above, this is an interim position statement and a further update will be prepared as necessary in order to provide further detail on issues that remain unresolved at this time, the outcome of negotiations about funding, financial implications, and final variance of cost.

3. Finance

3.1 <u>Estimated costs</u>	<u>£'000</u> <u>Original</u>	<u>% of total</u> <u>Original</u>	<u>£'000</u> <u>Updated</u>	<u>% of total</u> <u>Updated</u>
Design Fee	454	12	238	6
Other Fee	0	0	38	1
Supervision	196	5	220	5
Construction / Land / Utilities	3,239	83	3,743	88
Total	3,889	100	4,239	100

<u>Funds Available</u>	<u>£'000</u> <u>Original</u>	<u>£'000</u> <u>Updated</u>
Hampshire County Council Capital Programme	1,569	2,140
Hampshire County Council Structural Maintenance Programme	600	600
Defra Recovery*	200	0
Winchester CC	80	100
Defra FDGiA	1,440	1,399
Total	3,889	4,239

** Defra Recovery funding utilised on Phase 1 released an equivalent sum of locally resourced capital funding for Phase 2.*

3.2	<u>Revenue Implications</u>	<u>£'000 Original / Updated</u>	<u>% Variation to Committee's budget Original / Updated</u>
	Net increase in current expenditure	0 / 0	0 / 0
	Capital Charge	335 /	0.210% /

4. Programme

4.1. The current construction phase is due to be completed by October 2016.

5. Scheme Details

5.1 As set out in the original Project Appraisal, the aim of the scheme is to increase the hydraulic capacity of the underground and roadway drainage by providing a culvert along East Street and West Street. Designed to current standards, on completion the system will receive drainage from the upstream ditch, surface water flows, and groundwater pumped from properties. An additional foul water sewer has been installed alongside the culvert to pick up property connections displaced by the large culvert. To avoid the culvert being swamped by high ground water levels, the system is sealed against infiltration below ground level.

5.3 The roads and footways along East Street and West Street damaged by the flood alleviation works, and those sections otherwise in poor and unsafe condition will be re-surfaced, and kerbing regulated to protect properties from run-off discharging directly into properties.

6. Departures from Standards

6.1. None.

7. Community Engagement

7.1. Monthly meetings are held at Hambledon Village Hall to ensure that key partners i.e. County and District Members, the Parish Council and the local flood action group are kept updated on project progress, and issues of concern raised and discussed.

7.2 A monthly 'drop-in' session is also held for local businesses and residents so that any questions about the scheme can be put to the contractor and the County Council's site staff. In addition, regular leaflets are provided by the contractor to the village outlining progress of the works, the overall programme and any special arrangements that will need to be put in place.

8. Statutory Procedures

- 8.1 Because the works are in the vicinity of a main river, the works have required flood defence consent from the Environment Agency (EA). As anticipated previously, Temporary Traffic Regulation Orders have been put in place during the course of the works to facilitate the construction.

9. Land Requirements

- 9.1. There are no land interest requirements for the Phase 2 Works.

10. Maintenance Implications

- 10.1. The maintenance of the new flood culvert will be the responsibility of the County Council. All other maintenance implications will be as set out previously.

11. Recommendations

- 11.1. That the Executive Member for Environment and Transport gives approval to procure and spend for the updated Project Appraisal for Hambledon Phase 2 Flood Alleviation with its new value of £4,239,000, as set out in this report;
- 11.2. That the Executive Member give approval for negotiations to take place with partners to secure additional contributions; and
- 11.3. That the Executive Member approves the increase of the County Council's contribution by up to £350,000 funded from the Flood Risk and Coastal Defence Programme.

LTP3 Priorities and Policy Objectives

3 Priorities

- To support economic growth by ensuring the safety, soundness and efficiency of the transport network in Hampshire X
- Provide a safe, well maintained and more resilient road network in Hampshire X
- Manage traffic to maximise the efficiency of existing network capacity, improving journey time reliability and reducing emissions, to support the efficient and sustainable movement of people and goods X

14 Policy Objectives

- Improve road safety (through delivery of casualty reduction and speed management) X
- Efficient management of parking provision (on and off street, including servicing)
- Support use of new transport technologies (i.e. Smartcards; RTI; electric vehicle charging points)
- Work with operators to grow bus travel and remove barriers to access
 -
- Support community transport provision to maintain 'safety net' of basic access to services X
- Improve access to rail stations, and improve parking and station facilities
- Provide a home to school transport service that meets changing curriculum needs
- Improve co-ordination and integration between travel modes through interchange improvements
- Apply 'Manual for Streets' design principles to support a better balance between traffic and community life
- Improve air quality
- Reduce the need to travel, through technology and Smarter Choices measures

- Promote walking and cycling to provide a healthy alternative to the car for short local journeys to work, local services or school
- Develop Bus Rapid Transit and high quality public transport in South Hampshire, to reduce car dependence and improve journey time reliability
- Outline and implement a long term transport strategy to enable sustainable development in major growth areas

Other

Approval of the scheme will also contribute towards:

- The Solent and South Downs Catchment Flood Management Plan.
- Hampshire County Council's Local Flood Risk Management Strategy.
- Hampshire County Council Groundwater Surface Water Management Plan.

CORPORATE OR LEGAL INFORMATION:**Links to the Corporate Strategy**

Hampshire safer and more secure for all:	yes
Corporate Improvement plan link number (if appropriate):	
Maximising well-being:	yes
Corporate Improvement plan link number (if appropriate):	
Enhancing our quality of place:	yes
Corporate Improvement plan link number (if appropriate):	

Other Significant Links

Links to previous Member decisions:		
<u>Title</u> Hambledon Phase 2 Flood Alleviation – Project Appraisal	<u>Reference</u> 5871	<u>Date</u> 11 July 2014
Direct links to specific legislation or Government Directives		
<u>Title</u>	<u>Date</u>	

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.)

<u>Document</u>	<u>Location</u>
None	

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 completed scheme will ensure that disruption to the local community, and in particular for vulnerable members of society, will in future be reduced. For this reason, and because of the frequency and seasonal nature of past flood events, and practice that has developed to cope with these occurrences, it is considered that there will be low impact on the protected characteristics of age, disability, pregnancy and maternity.

2. Impact on Crime and Disorder:

2.1. The proposal has no impact on Crime and Disorder.

3. Climate Change:

3.1. How does what is being proposed impact on our carbon footprint / energy consumption?

The improved efficiency of maintaining the system afforded by the works

reduces the level of resources needed to react in a flooding event to achieve the same objective.

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

The increasing occurrence of flooding in the UK has been linked to climate change. These improvements would be working toward overall, planned measures to adapt the infrastructure in Hambledon to climate change.