

Enterprise M3 Board Meeting

31 January 2017

Lower Thames Flood Defence Works - Item 12c

Enterprise M3 Board members are asked to:

AGREE that the expenditure from the Local Growth Fund be approved for the following scheme:

- River Thames Scheme (£2m)

1 Background

- 1.1 In 2009 the Environment Agency developed and adopted The Lower Thames Flood Risk Management strategy which describes the Environment Agency's Flood Risk Management for the 100 year period to 2110 for the Lower Thames between Datchet and Teddington. The key objective of the Lower Thames Strategy is to identify sustainable solutions to reduce flood risk to people and property. This is to be achieved by minimising disruption to infrastructure and services, protecting and enhancing sites of nature conservation and biodiversity, and by maintaining biological quality and sediment regime of rivers and protecting fisheries.
- 1.2 The Lower Thames Strategy covers one of the largest and most at risk developed but undefended flood plains in England, with 21,000 properties and 50,000 people currently at risk of flooding. The consequences of flooding in the area would be severe, with floods lasting for long periods. Major flooding would affect critical national infrastructure, by causing severe disruption and likely traffic grid-lock to the M25, M4 and M3 motorways along with over 200km of the local and regional road network, suspension of several major drinking water abstractions supplying London and threaten up to 20 local electricity sub-stations.
- 1.3 The Enterprise M3 Strategic Economic Plan identifies flooding and severe weather as one of its Strategic Considerations and lists the following:
 - We recognise that in times of severe weather, many parts of the LEP area can be seriously affected by flooding. This is particularly the case for those developed areas along the rivers Thames, Wey and Blackwater. The impacts of flooding are felt by home-owners, businesses and the wider economy. In addition, the strategic transport network, power, water and sewage infrastructure are also at risk of disruption from flooding. The LEP is committed to working with partners, including the Environment Agency in managing, and where possible alleviating these risks. This may include support for flood alleviation schemes, such as the River Thames Scheme – Teddington to Datchet. We wish to work with neighbouring LEPs on schemes that address flood alleviation and defence measures to ensure that those water courses that feed into main channels, and which run through other sub regions, are tackled in a cohesive way. The recent floods highlighted the issues but GTV6 LEPs have yet to start this work and revenue funding will therefore be sought through the LGF in order to help identify sustainable solutions to flooding. There is also a need to ensure the wider resilience of our transport network against flooding.
- 1.4 The River Thames scheme was specifically referenced as a Level 3 Intervention in our Strategic Economic Plan, these are of strategic importance and will serve the Sci Tech corridor and surrounding areas. The SEP states:
 - The River Thames Scheme would reduce flood risk in communities near Heathrow, the UK's largest employment site, including Datchet, Wraysbury, Egham, Staines, Chertsey and Shepperton. The Scheme consists of large scale engineering work to construct a flood channel as well as improvements to three of the Thames weirs, provision of local flood

protection for up to 1,500 individual properties and improved flood incident response plans. The flood channel will be between 30 and 60 metres wide and 17 kilometres long (built in 3 sections).

- 1.5 To date, the River Thames Scheme – Datchet to Teddington is the only strategic scheme identified in our SEP not to be progressed in some form.
- 1.6 The LEP has established a process whereby promoters of Infrastructure schemes that have been provisionally allocated LGF should submit completed full business cases to the PMG for further consideration, having first been considered by the Land and Property Action Group.
- 1.7 The business case has been subject to independent scrutiny and reviewed by the Land & Property Action Group. The scheme was supported, although concerns were expressed about the process for securing funds to meet the funding gap which appears to focus on securing the smaller contributions rather than considering how the larger gaps in funds can be secured – such as consideration of further developing some of the area released from the flood plain for residential uses. In reflection of this it was noted that in addition to funding this element of the scheme, it was also important that Enterprise M3 and partners continued to not only lobby for funding for this scheme with Government but to explore ways of generating income from the site/reducing costs.
- 1.8 As part of the Local Growth Fund 2 funding announcement from Government, Enterprise M3 was awarded funding specifically for:
 - Capacity improvements to the Lower Thames Flood Defence scheme

2 River Thames Scheme – Project Detail

- 2.1 The Environment Agency in partnership with the Thames Funding Strategy Group have applied for £2m of Local Growth Funding to support the design phase of the scheme to Full Business Case split across 2017/18 and 2018/19.
- 2.2 The project is being delivered in two phases. The initial work aims to develop the Outline Business Case (OBC) and the second phase will deliver the flood alleviation works to the River Thames. The Environmental Agency are required to meet certain milestones set by government, in order to release central funding of £212,000,000.
- 2.3 The Outline Business Case needs to be completed by 2018 to allow necessary planning and pre-commencement works to be submitted and approved. The River Thames Flood Scheme then needs to start works in 2021.
- 2.4 The Environment Agency are seeking funding towards the items detailed in Appendix 2, which are critical to the completion of the Outline Business Case. Nine partners have already contributed £35m towards the OBC development.
- 2.5 Without funding from Enterprise M3, The Environment Agency will have to seek alternative sources of funding. This could jeopardise the current project plan and increase the risk of not meeting the government milestones. The River Thames Scheme is being developed in partnership with Thames Valley Berkshire LEP who have approved funding of £0.5m from LGF.
- 2.6 The project is promoted by a wide partnership of partners including the Environment Agency (EA), Surrey County Council (SCC), six Local Authorities (LAs), Thames Region Flood and Coastal Committee (TRFCC) and Thames Water (TW). A MoU has been signed by the partners.
- 2.7 The wider scheme is a very major flood relief project for the lower Thames between Datchet and Teddington that involves 17km of new channels built in three sections, improvements to three weirs and enhancement of 40 ha to land for wildlife in priority habitats.
- 2.8 The Scheme will contribute to the flood risk reduction for 100,000 sqm of commercial space, 50km of road and rail network and parts of the M3, M4 and M25.
- 2.9 The Scheme aims to unlock in excess of 800 hectares of land from the flood plain. Initial estimates confirm that 13 hectares could be used suitable for housing, although in discussions with the Environment Agency this figure could be increased significantly should the local authority planning departments be consulted. Enterprise M3 will work with the EA and local

authority partners to aid the case for changing designated uses of the land. It is also possible to use some of the land earmarked for open space as SANG to help the delivery of housing within a reasonable proximity of the site.

- 2.10 The Environment Agency worked with government to identify the scheme and were awarded an initial £212,000,000 towards the project. Government's expectations were that the EA would work with local partners and stakeholders to seek further funding to address the shortfall in the schemes cost.
- 2.11 A funding strategy group chaired by Cllr David Hodge (Surrey County Council) have agreed a terms of reference, detailing the groups role and responsibilities in attracting investment into the scheme. The Group has already identified a long list of beneficiaries of the scheme who we believe could be approached for funding. More than 50 public and private organisations have been ranked to determine the top 7 critical contributors and subsequent 10 organisations based on criteria such as their reputational risk from flooding, size, budget and corporate social responsibility.
- 2.12 As a large proportion of the Enterprise M3 region is at risk of flooding, we have been identified as a contributing partner with a significant interest in the benefits of the scheme.
- 2.13 Should the overall project not progress for whatever reason, Enterprise M3 could use the information gathered from the works in Appendix 2 and work with the EA to deliver more locally led schemes, but without the same impact.

3 Independent Scrutiny

- 3.1 The Environment Agency submitted a detailed business case to Enterprise M3 in September 2016 and AECOM have carried out independent due diligence on this project. AECOM's report focused on the following areas:
 - Fit with the priorities set out in Enterprise M3 Strategic Economic Plan and other economic strategies
 - Deliverability of the proposal to the specified budget and timescale
 - Economic outcomes that will result from the delivery of the proposal
- 3.2 AECOM conclude that the project directly aligns with Enterprise M3's Strategic Economic Plan supporting a number of objectives e.g. business continuity and resilience, maintaining road, rail and air connectivity, supporting opportunities for recreation. The project will reduce flood risk for over 15,000 homes and businesses between Datchet and Teddington.
- 3.3 Currently the scheme has not provided a breakdown of economic benefits of GVA by sector in line with EM3 guidance but this can and should be completed in the future through a build-up of individual commercial use types.
- 3.4 The project generates a BCR of 5.0 (Based on 2015 costs) and AECOM are satisfied with how this has been calculated. The proposals estimates that 100,000 sqm of commercial floor space will be protected, equivalent to between 50 and 450 commercial properties.
- 3.5 AECOM is satisfied with the estimated economic benefits of the scheme for GVA (£100m), loss of tourism (£45m) and traffic disruption £195m
- 3.6 The value of construction (jobs, GVA) has not yet been calculated and this should be requested given the project's scale and potential national supply chain benefits.
- 3.7 AECOM have made the recommendation 'Potential to Proceed' with further work being undertaken prior to any funding agreement being entered into. These include:
 - The LEP should be closely involved in the progress of the funding strategy (through 2017) and ensure that the approach to funding is appropriate, the maximum land value uplifts are achieved and more land is developed than the 11 ha currently envisaged.
 - The applicants need to do further work on economic and wider economic impacts to fully conform to LEP guidance in the Outline Business Case (OBC). This should cover impacts on utilities, railways, motorways, the road network and global businesses in the area.

- A complete monitoring and evaluation framework should examine impacts on jobs, housing, private sector investment and GVA.

4 PMG

- 4.1 This paper was presented to the Programme Management Group on the 16th January 2017. The group considered the case for investment and this was debated by the group.
- 4.2 The Group noted that this was the first of its type, as the LEP had not previously funded projects in the design and development stages.
- 4.3 It was highlighted that the project was of national significance and there were a number of parties that would be required to make contributions to ensure that the scheme was successful.
- 4.4 The Group recognise there was a reputational risk if the LEP did not support the project as the cost of flooding to the economy was significant.
- 4.5 It was suggested that further information should be sought before taking the project to the Enterprise M3 Board. Request details from the Environment Agency on how much they were contributing, what the LGF funding would be spent on, what the LEP would get in return and what LEP could do to influence the scheme. A verbal update on progress will be given at the meeting.
- 4.6 The Group agreed to recommend to the Board that £2m LGF grant funding be approved for the Lower Thames Flood Defence works in principle, subject to the further information being provided by the Environment Agency.

5 Conclusion and Recommendations

- 5.1 Enterprise M3 have carefully considered the business case submitted by the Environment Agency and the unusual position of providing funding towards developing a wider case for investment. Whilst there will not be any immediate tangible economic outcomes, the significant benefits of the preferred scheme, far outweigh not supporting the scheme.
- 5.2 As identified in points 1.4 – 1.6, Enterprise M3 recognised the risk to existing businesses and key infrastructure in the development of its Strategic Economic Plan and worked with the EA to secure funding in Local Growth Fund 2.
- 5.3 The business case is considered to be strong in terms of the potential wider economic benefits and whilst the independent scrutiny has identified some further steps to be taken before monies are released, the overall conclusion is that this is a strong scheme that will contribute to the Enterprise M3's economic objectives.
- 5.4 Board members are asked to AGREE the recommendation that the expenditure from the Local Growth Fund be approved towards the River Thames Scheme.

Alex Piper
Enterprise M3 Senior Project Officer
24 January 2016

Appendix 1 – Flooding photo's

Runnymede access to M25:



Runnymede Hotel and surrounding Business Park:



A308 Flooding:



Staines Flooding:



Railway damage



Appendix 2 – EA funded items

Item	Description	Purpose	Value (£)
Landscape design product	A comprehensive landscape design for the flood channel to demonstrate how the channel will be landscaped, public amenity, environmental enhancement. The level of detail is a requirement for a planning application. The outputs are a suite of 1:1250 scale drawings together with visuals and illustrations.	Required to enable pricing of the scheme for business case and to support the planning application by providing an outline of the scheme. We cannot submit a planning application or achieve other consents such as Natural England approval without this deliverable.	£477k
Archaeological Surveys	Detailed investigations into the areas of virgin ground along the flood channel route in accordance with the recommendations of the recently commissioned desk top survey. The costs are to cover survey works on site with the final product being a write up of these surveys.	This is required to accurately understand the cost of the scheme and to meet statutory approvals such as our planning application.	£800k
CFD Modelling	A suite of computational models developed within specialist software with a suite of runs to test different scenarios for the schemes hydraulic performance. The outputs are a suite of visuals and reports to assist aspects of the scheme design. The model will also be provided as a software file for future testing if required.	These works are required to ensure that we have an accurate understanding of how the flood channel will perform hydraulically. This is required to understand the operating regime of the scheme.	£280k
Benefits Update	A suite of flood maps and tabulated information documenting the benefits to individual properties and local businesses.	This is necessary to evidence the benefits the scheme will create in flood risk reduction in order to secure funding and public support for the scheme and demonstrate that we have the right technical solution.	£170k
Planning Fee.	A fee to be submitted to the local planning authority in order to submit our application for consideration.	The scheme requires planning approval in order to proceed.	£500k
Tender Documents	A Package of technical information and a contract for submission to prospective bidders in order to find a contractor to build the scheme.	This is required in order to tender for the scheme and provide prospective suppliers with an accurate detailed understanding of what we want to construct.	£200k