

North Yorkshire County Council

Business and Environmental Services

Executive Members

7 December 2018

Flood Risk Management Programme Delivery Update

Report of the Assistant Director – Highways and Transportation

1.0 Purpose of Report

- 1.1 To inform The Corporate Director, BES in consultation with BES Executive Members of:
- i. The progress of scheme development in the priority locations agreed to be progressed by NYCC in May 2018
 - ii. The Forestry Commission-led Pickering Slow the Flow Enclosed Beaver Trial, at Cropton Forest.
- 1.2 To seek the approval of the Corporate Director, BES, in consultation with BES Executive Members for:
- i. The allocation of the remaining revenue budget towards the projects in the prioritised locations in 2018/19.
 - ii. The bringing forward of scheme development in Kirkbymoorside and allocation of spending towards this, as part of the longer term programme.
 - iii. The establishment of a fixed-term 1 year post part-funded by RDC, to assist with the development of schemes in the Ryedale Area.
- 1.3 To seek the support of the Corporate Director, BES, in consultation with BES Executive Members for a bid to the Regional Flood and Coastal Committee (RFCC) for £55k to support the development of work being undertaken in Great Ayton.

2.0 Background information

- 2.1 In January 2018 The Corporate Director, BES in consultation with BES Executive Members approved a method of prioritising locations where flood investigation had been necessary, to inform the programme for scheme development and delivery, with the intention of NYCC delivering surface and ground water flood mitigation in line with its powers to act under the Flood and Water Management Act (2010).
- 2.2 In May 2018 the Corporate Director, BES, in consultation with the BES Executive Members approved the first tranche of delivery, based on the criteria approved on 26 January 2018.
- 2.3 The locations identified as highest priority for NYCC were Malton, Norton and Old Malton, Scarborough Town, Tadcaster, Filey Great Ayton and South Craven Villages.
- 2.4 Schemes are in development in Tadcaster and Filey led by the Environment Agency (EA) and Scarborough Borough Council respectively.

- 2.5 Work was already approved and progressing towards the development of a scheme in Malton, Norton and Old Malton, led by NYCC as approved by the Corporate Director, BES and the BES Executive Members at their meeting on 26 January 2018.
- 2.6 Feasibility work was already agreed to be undertaken in the Rye Catchment as part of previously programmed commitments by the Corporate Director, BES in consultation with BES Executive Members at their meeting on 25 May 2018.
- 2.7 The BES Corporate Director, in consultation with BES Executive Members therefore approved the progression by NYCC of the development of schemes in the additional locations of Scarborough Town, Great Ayton and South Craven Villages.

3.0 Update on NYCC scheme development

- 3.1 Appendix 1 demonstrates the status of projects in the agreed NYCC priority locations
- 3.2 Projects outside of the NYCC programme
- 3.3 Cropton Enclosed Beaver Trial
- 3.4 In 2015 Pickering Slow the Flow Scheme was introduced. This is a scheme which utilises natural flood management techniques to afford a level of flood alleviation. The project has been successful in affording a standard of flood mitigation, in a location where more traditional flood work would be unaffordable.
- 3.5 As a result of pilot projects such as the one in Pickering, the new Defra 25 Year Plan for the Environment proposes that natural flood management (NFM) measures should be more widely used as an integral part of the country's approach to reducing flood risk.
- 3.6 The Slowing the Flow Partnership (STF) is in the process of quantifying the longer-term contribution of NFM measures and mitigating future costs associated with maintaining structures or channel interventions with a range of scientific monitoring schemes and equipment. Costs associated with installing and the subsequent maintenance of woody debris dams and associated structures are a key issue hindering the adoption of Slow the Flow projects here and elsewhere in areas subject to spates of flood water threatening downstream infrastructure.
- 3.7 The Forestry Commission as owner of the land on which the slow the flow natural flood measures are placed proposes a five year project to create a 10ha enclosed trial beaver release site in the Sutherland Beck Valley, Cropton Forest. The main focus for this trial would be to scientifically investigate the impact that beaver have upon the man-made 'Slowing the Flow' (STF) structures in the Sutherland Beck to attempt to explore solutions to the maintenance issues the Slow the Flow partnership is encountering.
- 3.8 The project seeks to investigate an alternative, more natural way of maintaining the structures, with potentially lower ongoing costs and a way that benefits the wider natural environment. If the scheme does not go ahead, there is a real risk that the partnership cannot financially afford to maintain the STF structures and the stream will revert to potentially causing flood risk downstream.
- 3.9 The site is accessible and it can be used by the nearby Cropton Holiday Lodges site and their visitors. It provides the Forest Holidays site a unique selling point for eco-tourism with all the associated economic benefits.

- 3.10 The total project cost is presently estimated at £174K, of which £80k has been secured, from North York Moors National Park Authority, Cropton Holiday Lodges, and Forestry Commission contributions. If full funding is not received by the Forestry Commission, the project will not commence.
- 3.11 Ryedale District Council are also to be approached by the Forestry Commission for a contribution.
- 3.12 It is also requested that NYCC as a member of the slow the flow project board that NYCC make a contribution to the project. It is proposed that a £15k contribution from the Flood Risk Management (FRM) budget would add confidence in NYCC's shared commitment to the project.
- 3.13 Yorkshire Derwent Catchment Partnership
- 3.14 In 2017 NYCC successfully bid for £60k from the Regional Flood and Coastal Committee (RFCC) on behalf of the partnership to support a dedicated officer and flood related projects. This is already included in this year's budget and it is expected that this will be drawn this financial year as projected.

4.0 Equalities

- 4.1 A Full Equalities Impact Assessment is included in Appendix 2.
- 4.2 The Assessment finds that the proposals will have no heightened effect upon any protected characteristic or combination of protected characteristics.

5.0 Finance

- 5.1 There is £273k presently unallocated in the FRM annual revenue budget which this report seeks to allocate in 2018/19.
- 5.2 There is presently £863,659 in reserve, the below profile will require funds to be drawn from the reserve this financial year, due to projects being brought forward from the future programme.
- 5.3 The proposed spending during the financial year would require approximately £157k to be drawn from reserves at year end, across the whole flood risk management budget, bringing forward the commencement of expenditure of reserves from future years.
- 5.4 In terms of the external contributions demonstrated, the £20k for Kirbymoorside, £13k associated with Malton, Norton and Old Malton and the Derwent Catchment Funding is already in the budget, and is included to demonstrate the spending against these projects this financial year.
- 5.6 The £55k for Great Ayton is allocated in the RFCC budget, and the wider programme of which it forms part is an agreed way of working across the region. There is therefore a very small risk that this bid would be unsuccessful. The funding is intended to contribute to an integrated drainage study to examine the case for future investment in Great Ayton and the responsibilities, and the inter-related responsibilities. These include surface water risk, but also cut across EA, main river risk NYCC Highways systems and Northumbrian Water Sewer assets. The scheme is being delivered in partnership with the relevant risk management authorities

accordingly. There is potential that the value required for the work would be less than £55k, however the amount will not exceed this.

Table 1: Profile of flood risk expenditure on projects during 18/19

Project		NYCC already allocated 18/19 (£000's)	External contribution to NYCC for projects delivered during 18/19 (£000s)	Proposed spend at Q4 (£000s)	Total project spend at year end (£000's)
Rye Catchment Study		55	55	55	55
Kirkbymoorside*		20	20	45	65
Malton, Norton and Old Malton	Malton Norton and Old Malton Business Case supporting work	10		10	10
	Malton, Norton and Old Malton Detailed Designs**	0	13	100	100
	Malton emergency response contingency	0		20	20**
Great Ayton study incl. Highway Drainage Studies			55	70	70
Tadcaster Contribution to EA business case development		0		25	25
Scarborough		25		50	50
Cropton Enclosed Beaver Trial		0		15	15
South Craven villages study		25		25	25
Derwent Catchment Partnership Project contributions (from RFCC bid)		60	60	60	60
TOTAL		195	203	475	495

*Kirkbymoorside is presently in the future programme, with associated studies to commence in 18/19. As the location is part of the Rye study some of the initial investigation has been already undertaken, with funds allocated. There is an additional £20k of the Rye Catchment Study funding available for more detailed study in this location, so it is proposed to bring this project development as part of the wider programme forward, to combine both projects together formally.

** This value is to cover the risk of emergency response in Malton and may not be required.

6.0 Legal

6.1 North Yorkshire County Council has permissive powers under both Section 14 of the Land Drainage Act 1991 to undertake work to mitigate surface water flooding or groundwater flooding, and to undertake works to ordinary watercourses and under Section 25 of the 1991 Act to require works to maintain the free passage of flow on ordinary watercourses.

6.2 Under the County Council's Constitution, the Corporate Director BES has delegated powers to exercise all functions of the Council as Lead Local Flood Authority under the Flood and Water Management Act 2010 and the Land Drainage Act 1991,

including (but not limited to) the granting (or otherwise) of land drainage consents for ordinary watercourses.

- 6.3 This report seeks to update on the progress of scheme development in the locations which are of the highest priority to NYCC in which to exercise these powers. The affordance of a priority to “high risk locations” is detailed in the NY Flood Risk Management Strategy.
- 6.4 Because work is required to be undertaken on third party assets, a decision over the ownership and maintenance of any future assets resulting from the work would be required following the establishing of a preferred scheme and prior to its delivery.
- 6.5 Specific contracts detailing the future maintenance commitments of third party owners following a scheme may be required to be entered into as a consequence of any distinct future decisions taken over a future projects delivery, but this is not a matter for this report.

7.0 Recommendations

7.1 It is recommended that:

- 7.2 The Corporate Director, BES in consultation with BES Executive Members note:
- i. The progress of scheme development in the priority locations agreed to be progressed by NYCC in May 2018
 - ii. The development of the Forestry Commission led Slow the Flow Enclosed Beaver Trial, at Cropton Forest.

- 7.3 The Corporate Director, BES, in consultation with BES Executive Members approve:
- i. The allocation of the remaining revenue budget towards the projects in the prioritised locations, in Q4 as detailed in the report.
 - ii. The bringing forward of spending against scheme development in Kirkbymoorside as part of the longer term programme.
 - iii. The establishment of a fixed-term one year post part-funded by RDC, to assist with the development of schemes in the Ryedale Area.

- 7.4 The Corporate Director, BES, in consultation with BES Executive Members support a bid to the Regional Flood and Coastal Committee (RFCC) for £55k to support the development of work being undertaken in Great Ayton.

Barrie Mason
Assistant Director - Highways and Transportation

Author of Report: Emily Mellalieu

Background Documents:
Flood Incident Review Protocol

Table 1 Progress update on NYCC agreed priority locations.

Location	Officer comment	Recommendation for future work
Malton, Norton and Old Malton	<p>Work to progress the Malton, Norton and Old Malton business case for partner contributions has continued. An application for £500k growth funding was submitted in October, with a decision expected in December '18.</p> <p>The business case for £360k EA funding will be submitted during Q4. Options are now rationalised with scheme value estimated at £1.59m, and fully funded from above contributions and NYCC and RDC committed values (450k and £340k respectively).</p> <p>The scheme fundamentally seeks to bolster the existing organisational response to raised levels in the River Derwent and as such, a partnership arrangement with Ryedale District Council (RDC) has been agreed in principle to support the future operational pumping response required. This will also see the procurement of a third party contractor.</p>	<p>Detailed designs are proposed to be prepared, funded from FRM revenue budget during 18/19 Q4 and 19/20 Q1. RDC has offered to contribute half the salary costs to a fixed term post to project manage the delivery of the project, housed in the NYCC FRM team with remaining salary taken from NYCC FRM revenue budget. Subject to job evaluation, it is expected that the post could be in place in April 2019.</p> <p>The requirement for a continued emergency response means that there is an annual financial implication on the FRM budget, required to fund the operations of a third party contractor. It is proposed to commit a sum of £20k to reserve annually to be called upon when operations are required (over the past 10 years it has been necessary on average bi-annually).</p>
Scarborough Town	<p>The section 19 investigation into the August 2017 surface water flood event is to be published in November '18, with recommendations made in the report for the progression of work, which concentrates on the upgrading the condition of culverts and including debris screens/sediment traps and also on modifications to the highway and property to allow for events exceeding the capacity of drainage systems. £25k was previously agreed to be spent on the development of recommendations.</p>	<p>Scheme development and feasibility to commence during Q4. The Section 19 report has highlighted that drain condition surveys would be helpful. It is proposed to commit an additional £25k during Q4 to support the development of a future scheme.</p>
Great Ayton	<p>£45k was contributed from the 17/18 FRM budget towards a multi-source study being developed in partnership with NYCC and Northumbria Water. NW have led on delivery, through consultants Mott McDonald through 18/19.</p>	<p>It has been identified that NYCC would be the most appropriate party to submit a bid to the RFCC for an additional £45k to contribute towards the study. The money is already allocated in the RFCC programme in principle. A bid would be submitted during Q4.</p> <p>The study has identified locations in Great Ayton where it is required to map the highway drainage to permit an understanding of its impact and contribution to surface water flooding in the town. It is proposed that NYCC fund this work during Q4. It is estimated that this will cost around £20k.</p>

Rye Villages	<p>Funded by successful application to the EA for Flood Defence Grant in Aid (FDGIA) locations in the Rye identified for surface water study were Thornton le Dale, Hovingham, Sinnington, Gilling East, and Kirkbymoorside, based on the residual risk of conurbations in the Rye.</p> <p>The initial scoping exercises are due for completion in December and have involved engagement with the communities and risk management authorities to identify feasible solutions to flood risk in dispersed and rural locations.</p> <p>This project is being delivered in a manner which complements Natural Flood Management measures being delivered by the Derwent Catchment Partnership, meaning the villages will benefit from both natural flood management approach and the wider ecological benefits it delivers and harder surface water flooding mitigation measures.</p>	<p>The studies will identify proportionate works in the villages to address surface water flooding. Permission to deliver this will be sought at the start of next financial year for delivery of the options once the outcome of the studies is known. Whilst the Rye Villages project was part of previous programme commitments, Kirkbymoorside has been included in the studies and given its risk, it scores highly against the NYCC prioritisation criteria and would stand alone and be due for scheme development in the next financial year. It has suffered significant flooding of the high street historically and work over the last quarter has identified a potential scheme. Due to the number of properties affected, there would be a healthy proportionate EA FDGIA contribution available for this work (> £200k). The project was planned at a high level to be delivered in the next round of locations, with study commencing during financial year 19/20, however it is proposed that work continues and leads on from the Rye work, during Q4 given the work already underway and in momentum in the location, and this would put NYCC in a better position to develop other schemes planned in future years.</p>
South Craven	<p>NYCC contributed £25k to a project led by the EA closely supported by NYCC officers delivering studies to support the understanding of future feasibility of mitigation. This has been delivered during 18/19.</p> <p>The new river model of the Eastburn Beck catchment has now been completed and has been reviewed alongside existing hydrological data and flooding history by the consultants.</p> <p>Work has now moved onto an assessment of flooding mechanisms and quantification of flood risk to properties, business and Infrastructure. Once the outputs from this have been reviewed, development of long list options is planned through December and January, with the final report available in the Spring.</p>	<p>Any viable options identified as part of this assessment may then be taken forward to form a multi-agency strategy for reducing flood risk in this area. Work is on-going with the EA as part of the study to identify most appropriate partners to lead future work in those locations given the remits and the extent of powers of the organisations.</p>
Filey	Fully funded surface water project developed and due for delivery by Scarborough Borough Council.	No NYCC action required

<p>Tadcaster</p>	<p>Following the 2015 floods, the Environment Agency committed to investigating improved flood protection options for Tadcaster and secured local levy to fund a feasibility study to review options for the town. This was a recommendation of the NYCC Section 19 report on the event which recommended an improved system of flood defences in Tadcaster as a priority for the town, highlighting that the current level of protection is low.</p> <p>The feasibility study reviewed the work undertaken for a proposed scheme in 2002. It also investigated other options for the town and the preferred and most cost beneficial option has estimated costs of circa £10 million and would be eligible for FDGiA of circa £2.5 million leaving an estimated funding gap of approx. £7.5 million.</p> <p>The Environment Agency and partners have been developing a case to improve flood protection for Tadcaster. A feasibility study (funded by £50K of local levy) produced outline options and indicative costs. The preferred option (but not the final one) proposes a combination of walls and embankments at a cost of circa £10 million. With only 36 residential properties at significant or moderate risk (plus 43 business properties) the scheme is only able to attract 18%.</p> <p>A funding strategy was put together to define where the remaining money would come from. It identified existing stakeholders, other government funds, beneficiaries and therefore potential investors in the scheme. The EA has engaged with these stakeholders, all of which are interested in being part of the scheme and potentially investing, but all of which needed to see further scheme development to raise confidence.</p>	<p>In June 2018 a Strategic Outline Case (SOC) was submitted for by the EA York Office for internal approval. It asked that s FDGiA sum of £1.5 million was used to develop the project to Full Business Case (FBC). This was not approved and a recommendation made that this phase be proportionally funded by other stakeholders.</p> <p>The EA is pursuing this. FDGiA can provide approx. £300k of the value, and application is being made for £1.1 million contribution from the Local Growth Fund (York, North Yorkshire, East Riding LEP). This leaves a shortfall of £200k.</p> <p>The EA will not be approaching the businesses at this stage, believing that this will impact on the confidence that they have in the scheme.</p> <p>A contribution from NYCC would add assurance in the partnership between NYCC and the EA and would therefore make application to the growth fund more robust, and would add value through the development of a holistic scheme which also considers the inter-related surface water flood risk in the town.</p>
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Name of Directorate and Service Area	BES H & T Network Strategy
Lead Officer and contact details	Emily Mellalieu – 01609 534876
Names and roles of other people involved in carrying out the EIA	Tony Law
How will you pay due regard? e.g. working group, individual officer	Any issues identified will be considered by the report author.
When did the due regard process start?	When the NY Flood Risk Management Strategy was introduced a full EIA was prepared, which considered how the work to manage flood risk would be prioritised. Subsequently, a prioritisation method was given approval which directed the investigatory works of the flood risk management team. In January 2018 it was agreed to use this method to prioritise scheme development. In May 2018 locations for scheme development were agreed by the Corporate Director, BES in consultation with BES Executive Members, this report seeks to update on the work, allocate the remaining 18/19 budget towards these projects and to seek approval for flood risk expenditure on other partnership projects.
Sign off by Assistant Director (or equivalent) and date	Barrie Mason 26/11/18
<p>Section 1. Please describe briefly what this EIA is about. (e.g. are you starting a new service, changing how you do something, stopping doing something?)</p> <p>In January 2018 it was agreed that the existing method of prioritising investigation was extended and used to prioritise locations for scheme development. In May 2018 the highest priority locations for scheme development were agreed by the Corporate Director, BES in consultation with BES Executive Members. The report to which this EIA relates seeks to update on the work, allocate the remaining 18/19 budget towards these projects, including a draw from the FRM reserve, and to seek approval for flood risk expenditure on other partnership projects.</p>	
<p>Section 2. Why is this being proposed? (e.g. to save money, meet increased demand, do things in a better way.)</p> <p>To allocate the flood risk management budget to the development of flood alleviation solutions in our most at risk priority communities, to offer property and business protection, but also influences the growth potential in those locations. This also has public health benefits for those living at risk of flooding.</p>	
<p>Section 3. What will change? What will be different for customers and/or staff?</p> <p>The method of prioritisation of locations is already agreed. The locations at risk are already agreed. This report seeks to allocate the remaining budget to these projects. The report also seeks to bring forward a scheme in Kirkbymoorside into this financial year, using the flood prioritisation methodology, and to seek support for external contribution to the Great Ayton scheme, through the RFCC. It also seeks approval for a NYCC contribution towards a pilot project outside of the NYCC programme, related to the Pickering Slow the Flow project to which NYCC made previous contribution.</p>	
<p>Section 4. What impact will this proposal have on council resources (budgets)?</p>	

Cost neutral? N however the report seeks to demonstrate and gain approval for specific expenditure of resource already allocated towards Flood Risk Management rather than seeking additional funding.

Increased cost? N

Reduced cost? Y

Please explain briefly why this will be the result.

Funds are ear-marked for the delivery of flood risk management annually.

Since the approval of a method of prioritisation of locations, the flood risk management team is now able to allocate its annual funding from its budget towards projects, drawing from the existing reserve where required.

This report does not therefore alter council resources significantly but simply offers a robust statement of how funding allocated to flood risk management will be spent this year, with opportunities for additional external funding identified where appropriate which will reduce the value potentially required to be found from NYCC resources.

Section 5. Will this proposal affect people with protected characteristics?	No Impact	Make things better	Make things worse	Why will it have this effect? State any evidence you have for your thinking.
Age	X			<p>The proposed programme and allocated funding will not have any impact upon age, as it uses a methodology and a criteria for quantifying risk. As part of the calculation for prioritisation of locations, “critical infrastructure” – which would include residential care homes and hospitals is given a higher weighting than other indicative factors, in the criteria given that the risk of flooding affecting critical infrastructure has a higher and more far reaching impact than in other location. This means that locations which have residential facilities, doctor’s surgeries and hospitals have a higher priority than locations which do not and the proposed allocation of funding is therefore towards locations where critical infrastructure is more likely to be affected.</p> <p>This neither benefits nor dis-benefit any protected characteristic but it does mean that flood risk works are targeted at locations where the risk is heightened by its effects on critical infrastructure, which may include facilities used more by those with some protected characteristics.</p> <p>The weightings were agreed in January 2018.</p>
Disability	X			As above
Sex (Gender)	X			The proposal is to allocate funding and funding bids in accordance with the approved methodology for the delivery of

				flood mitigation works. Fundamentally the whole programme is based upon a locations risk of flooding, rather than based upon measures which benefit a particular set of individuals, the proposals will therefore have the same impact on all individuals.
Race	X			As above
Gender reassignment	X			As above
Sexual orientation	X			As above
Religion or belief	X			As above
Pregnancy or maternity	X			As above
Marriage or civil partnership	X			As above
Section 6. Would this proposal affect people for the following reasons?	No impact	Make things better	Make things worse	Why will it have this effect? Give any evidence you have.
Live in a rural area	X			Locations which are extremely rural are likely to have a lower score as the impact on the wider community is lower than in a larger conurbation with critical services and larger more densely spaced property numbers. Notwithstanding this, the impacts of flooding in a larger conurbation have a secondary effect on the wider community that the town services, for example, critical infrastructure such as hospitals, wider growth issues, disruption to transport, loss of business etc. are facilities for use by those living in a wide geographical area, and therefore the prioritisation used aims to prioritise those locations which have the largest effect on the wider community and not just the individual immediate properties affected.
Have a low income	x			The proposal would not affect this as the criteria would not distinguish between any factor that could identify a person's income.
Section 7. Will the proposal affect anyone more because of a combination of protected characteristics? (e.g. older women or young gay men?) State where this is				

<p>likely to happen and explain what you think the effect will be and why, giving any evidence you have.</p> <p>This is not likely to affect any one more because of a combination of protected characteristics.</p>			
<p>Section 8. Only complete this section if the proposal will make things worse for some people. Remember that we have an anticipatory duty to make reasonable adjustments so that disabled people can access services and work for us.</p>			
<p>Can we change our proposal to reduce or remove these adverse impacts?</p> <p>N/a</p>			
<p>Can we achieve our aim in another way which will not make things worse for people?</p> <p>N/a</p>			
<p>If we need to achieve our aim and can't remove or reduce the adverse impacts get advice from legal services. Summarise the advice here. Make sure the advice is passed on to decision makers if the proposal proceeds.</p>			
<p>Section 9. If the proposal is implemented how will you find out how it is really affecting people? (How will you monitor and review the changes?)</p> <p>As the schemes in the locations progress, risk registers and community engagement will be an integral part of planning, these will be picked up and mitigated as part of the scheme development. Any impacts will be reported through EIA in annual progress reports to the Corporate Director, BES in consultation with BES Executive Members.</p>			
<p>Section 10. List any actions you need to take which have been identified in this EIA</p>			
Action	Lead	By when	Progress