



## Transport, Economy and Environment Overview and Scrutiny Committee

15 July 2019

### Report of the Corporate Director Business and Environmental Services

#### Update on the Implementation of the Local Strategy for Flood Risk Management

#### 1.0 Purpose of Report

- 1.1 To provide a progress update on the implementation of the Local Flood Risk Management Strategy.

#### 2.0 Executive Summary

- 2.1 This report provides members with an update on the activities of North Yorkshire County Council (NYCC) officers towards the implementation and delivery of the Flood Risk Management (FRM) Strategy.
- 2.2 Objectives of the strategy are:
1. A greater role for communities in managing flood risk
  2. Improved knowledge and understanding of flood risk and management responsibilities for all stakeholders, communities and the media
  3. Sustainable and appropriate development
  4. Improved knowledge of watercourse networks and drainage infrastructure
  5. Flood risk management measures that deliver social, economic and environmental benefits
  6. Best use of all potential funding opportunities to deliver flood risk management measures
- 2.3 Actions have been taken towards the delivery of all objectives, with development management being the largest growth area in the workload of the team. A programme of scheme development is now on-going, with processes, guidance and protocols to support the delivery of the Council's responsibilities as Lead Local Flood Authority (LLFA) having been implemented.

#### 3.0 Key Background Information

- 3.1 North Yorkshire County Council is identified by the Flood and Water Management Act 2010 (FWMA) as the Lead Local Flood Authority for the North Yorkshire administrative area.
- 3.2 Under the FWMA, the Council has a duty to develop and maintain a Local Strategy for Flood Risk Management for our administrative area. Our FRM Strategy was published on 18 February 2015 following approval by the County Council.
- 3.3 This report offers an update on the implementation of the strategy to date, including flood risk/coastal erosion alleviation measures which have been implemented or are presently in the programme.

#### **4.0 North Yorkshire Flood Risk Strategy**

- 4.1 The present flood risk strategy includes an action plan which specifies the objectives of NYCC as LLFA, working in North Yorkshire to respond to the flood risk in the county.
- 4.2 This report will now update on delivery around each of these objectives, since the previous update report in April 2016.

#### **5.0 A greater role for communities in managing flood risk**

- 5.1 This is integral to the work associated with the flood risk management team. The team regularly represents NYCC at a variety of flood groups, and partnerships.
- 5.2 The Resilience and Emergency Team work with interested communities to develop resilience plans that communities have ownership of and can implement when flood warnings are issued. This is a voluntary scheme based on the desires of the community.
- 5.3 This is integrated with the national EA Flood Warden schemes, and other multi-agency preparedness work.
- 5.4 Work continues to tie this approach to the FRM programme of works, and locations where flood risk investigation has been undertaken are passed to the Resilience and Emergency Team to progress.
- 5.5 In addition, the FRM team also engages through the work of the catchment partnerships. This community encouragement and support is now part of business as usual for the team.

#### **6.0 Improved knowledge and understanding of flood risk and management responsibilities for all stakeholders, communities and the media**

- 6.1 It is clear in the course of undertaking the indicative duties of NYCC in its capacity as LLFA that there is a significant lack of understanding amongst the general public with regards to drainage responsibilities, and flood risk response.
- 6.2 This is particularly problematic, given that watercourses are predominantly in riparian responsibility. Landowners often do not know their responsibilities towards their drainage assets and watercourses, and lack of maintenance is often therefore a contributing factor to a locations flood risk.
- 6.3 In 2019 NYCC produced and published its Culverting Works and Drainage Maintenance Protocol 2019, which details the responsibilities of riparian owners, design guidance for culverts and offers the circumstances in which NYCC as Land Drainage Authority will act to use its enforcement powers and powers to undertake maintenance work on third party systems.
- 6.4 This document has already been helpful in clearly establishing the position of the council in regards to this. In addition, standard letters and FAQ's have been developed to assist with communication with the community.
- 6.5 The FRM team attend parish council meetings as business as usual and arrange and attend stakeholder events such as Tadcaster Flood Fair and Brompton Flood Awareness day in our most affected communities. These types of events attract significant interest from the community and media. The team is presently working on

an event for Malton, Norton and Old Malton to promote the new protocol and the scheme that is proposed in that area and to increase resilience and community preparedness within the community.

## **7.0 Sustainable and appropriate development**

- 7.1 In its capacity as LLFA, NYCC became statutory consultee on surface water drainage associated with major developments in 2016, however the council began receiving and commenting on applications in 2015, prior to this duty being statutory.
- 7.2 During this time, major development across the county has increased significantly, in line with the government drive to create more housing and growth opportunities.
- 7.3 The volume of major development applications requiring a statutory response on surface water drainage has nearly tripled since 2015.
- 7.4 As a result of this rise in demand, this statutory duty and objective of the strategy now forms a significant majority of the workload of the flood risk management team.
- 7.5 Robust, defensible advice on surface water drainage and flood risk during the planning process is critical to future proof the existing drainage network and ensure new development does not heighten the flood risk to the existing community or present a new risk to those living and working in North Yorkshire.
- 7.6 In 2018 the Council reviewed and published an updated SuDS (sustainable drainage systems) guidance document, to ensure that the technical standards NYCC is recommending are in line with best practice in a way which is achievable for the developer community.

## **8.0 Improved knowledge of watercourse networks and drainage infrastructure**

- 8.1 Under Section 19 of the Flood and Water Management Act 2010, on becoming aware of a flood in its area, a lead local flood authority must, to the extent that it considers it necessary or appropriate, investigate:
  - (a) which risk management authorities have relevant flood risk management functions, and
  - (b) whether each of those risk management authorities has exercised, or is proposing to exercise, those functions in response to the flood.
- 8.1.1 Where such an investigation is carried out, the LLFA must publish the results of its investigation, and notify any relevant risk management authorities.
- 8.2 Since 2011, the Council has undertaken flood investigation in over 170 distinct locations. Many of these investigations require ordinary watercourse and drainage mapping.
- 8.3 This historic record clearly offers an ever-increasing understanding of watercourse networks and drainage infrastructure. Each location is given a score within a criteria, which then informs the NYCC flood risk programme of scheme development and mitigation work.
- 8.4 Scheme development in our most high risk communities inevitably involves more comprehensive study and modelling of watercourse and drainage networks and their interactions to attempt to identify improvements that can be made to capacity or function. Work has either been delivered or is underway as a result of this process in the following high risk locations:
  - Malton, Norton and Old Malton

- Tadcaster
  - Rye Villages (Sinnington, Hovingham, Thornton le Dale, Kirkbymoorside, Gilling East)
  - Great Ayton (on-going)
  - South Craven (on-going)
  - Scarborough Town (on-going)
- 8.5 This understanding permits positive achievable potential scheme outcomes for the locations identified from our historical records and criteria as at most high risk. In addition, understanding drainage systems has stand-alone benefits distinct from scheme development, in the delivery of emergency response and improvement of community resilience.
- 8.6 The flood risk strategy offers a number of criteria for the production and publication of a formal report on the incident, as required by section 19 FWMA, which involves thorough investigation, details the causes and recommends the potential solutions.
- 8.7 The below incidents fulfilled the criteria for undertaking formal investigation in conjunction with other relevant risk management authorities:
- August 2017 - Scarborough Town
  - November 2016 - Sleights
  - Boxing Day 2015 flood investigation reports – Brotherton, Harrogate Greenfield Avenue, Knaresborough, Sessay, South Craven, Tockwith, Tadcaster and Whixley
- 8.8 These formal reports are published on the NYCC website:  
[www.northyorks.gov.uk/flood-and-water-management](http://www.northyorks.gov.uk/flood-and-water-management)
- 8.9 A flood risk asset register and supporting methodology has been introduced, in line with the stipulations of the FWMA. Assets identified through formal investigation as being integral to flood risk management are recorded on this asset register.
- 9.0 Flood risk management measures that deliver social, economic and environmental benefits**
- 9.1 Flood Mitigation and relief in rural, dispersed communities can be disproportionately expensive, given that the measures required to protect say, 1000 properties in Hull are broadly similar to those required to protect 20 in one of our market towns or villages. For this reason, it can be difficult to demonstrate the cost benefits required for Environment Agency Flood Defence Grant in Aid (FDGIA).
- 9.2 The social and economic problems associated with flood risk for our communities are nevertheless equally tangible, and consequently, as a result a proportionate programme of works in our most high risk priority locations has been developed by the flood risk management team and is being delivered.
- 9.3 Locations where flood investigation has previously been undertaken are scored against a criteria. Locations where a high number of properties are affected, where incidents are repeated, where critical infrastructure is affected, and where external investment could be attracted for example, have a higher weighting. This ensures that the locations which deliver the best social and economic benefits are targeted.
- 9.4 During the period of the present NY FRM Strategy, understanding and use of natural flood management (NFM) and holistic solutions has grown. NFM is now recognised as an excellent complementary measure to flood schemes, and the flood risk

management team continues to represent the Council at catchment partnerships, to be part of the work to deliver these multi-benefit solutions.

- 9.5 Where possible, environmental benefits are considered in all of NYCC’s flood specific work. The approach does however have limitations when used to deliver flood benefits only and is more appropriate in locations where multiple outcomes are intended and flood mitigation is not the principle objective.
- 9.6 The locations where schemes are in progress according to the criteria are demonstrated below, alongside an update of their status.

Location	Scheme status
Malton, Norton and Old Malton	<p>The scheme 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 to support the future operational pumping response required. This will also see the procurement of a third party contractor which has been identified through an appropriate procurement process and legal agreements between RDC, NYCC and the contractor are presently being prepared.</p> <p>The scheme will also see property level protection provided to approx. 50 houses in the most at risk locations.</p> <p>A demonstration “rain garden” will also be provided, on RDC land, to demonstrate sustainable drainage techniques and help with growth agenda and aesthetics in the affected areas. Malton Town Council has agreed in principle to take maintenance responsibility of this asset.</p> <p>A fixed term project manager, joint funded by Ryedale District Council and NYCC has been in place since April 2019.</p>
Scarborough Town	<p>The section 19 investigation into the August 2017 surface water flooding recommended the upgrading of the condition of culverts and including debris screens/sediment traps and also on property level resilience to allow for events exceeding the capacity of drainage systems. £25k was previously agreed to be spent on the development of recommendations. An initial feasibility study has been undertaken. This recommended modelling of some strategic culverts under the highway. This would also unlock growth opportunities. A scope for this next phase of feasibility work is presently in preparation.</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 Northumbrian Water. Northumbrian Water have led on delivery, through consultants Mott McDonald through 18/19 and 19/20. £30k was successfully bid for by NYCC to support this work, from both the EA Flood Defence Grant in Aid programme and the Regional Flood and Coastal Committee fund.</p> <p>The study will identify improvements to the inter-related drainage system that could be implemented to reduce flood risk.</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. The studies will be presented to Parish</p>

	<p>Councils during July and August of this year, to inform and gather views on the options.</p> <p>Permission to deliver this will be sought at the start of next financial year for delivery of the options once engagement with Parish Councils has been undertaken and the direction is known.</p> <p>This project is being delivered in a manner which complements Natural Flood Management measures simultaneously 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>
South Craven	<p>NYCC has 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 and 19/20.</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>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.</p> <p>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	<p>Fully funded surface water project developed. Planning permission recently granted. Scheme fully funded by external parties, including RFCC, and due for delivery by Scarborough Borough Council.</p> <p>No NYCC action therefore required and removed from NYCC priorities in January 2019.</p>
Tadcaster	<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 EA 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</p>

	<p>properties at significant or moderate risk (plus 43 business properties) the scheme is only able to attract 18% of full value.</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 by the EA York Office for internal approval. It asked that 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>FDGiA can provide approx £300k of the value and an application has now been successfully made during June 2019 to the Local Growth Fund for the £1.1 million contribution (York, North Yorkshire, East Riding LEP).</p> <p>NYCC has agreed a contribution of £25k towards the business case production. A working group is being established by the EA of which NYCC will form part.</p>
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## **10.0 Best use of all potential funding opportunities to deliver flood risk management measures**

- 10.1 The high level future indicative programme over the next 5 years is estimated at £3.6m. This is based on NYCC contribution of £1.13m, based on a value of £5k per historically affected property, as a “do minimum” property level protection option.
- 10.2 Third party contribution to this programme therefore is estimated at over £1.4m, drawn primarily from EA FDGiA and the Regional Flood and Coastal Committee.
- 10.3 It is clear that given the nature of flood risk and the relationships between the responsible risk management authorities, collaborative working and funding is key to successful delivery. An excellent example of this is the Malton scheme which is presently at detailed design stage, where funding is agreed in principle between NYCC, RDC, the Local Growth Fund and EA and with further bids planned. It is hoped that this approach can be replicated in all future schemes at earlier development stages.
- 10.4 The EA has been consulted on the overall programme methodology and is in support of it. Successful application has been made as a result of this and as the programme moves forward it is hoped that confidence in delivery increases and additional stakeholders can be identified to permit more schemes across county in the future.

## **11.0 Next steps**

- 11.1 In May 2019 the Environment Agency announced consultation on its next flood risk strategy document. The focus of the EA’s strategy, which NYCC are presently preparing a response to, is towards improving the resilience of our communities and infrastructure.
- 11.2 The NYCC Strategy has now been in place since 2015 and as this report demonstrates, work is well underway towards the delivery of its objectives.

## 12.0 Key Implications

### 12.1 Local Member

All

### 12.2 Financial

12.2.1 There are no financial implications resulting from this report, which is produced for information purposes only to update on the on-going work towards achieving the outcomes of the flood risk management strategy.

### 12.3 Legal

12.3.1 North Yorkshire County Council is identified by the Flood and Water Management Act 2010 (FWMA) as the Lead Local Flood Authority for the North Yorkshire administrative area.

12.3.2 Under the FWMA, the Council has a duty to develop and maintain a Local Strategy for Flood Risk Management for our administrative area.  
The Local Strategy for Flood Risk Management is a legal requirement; there is no legal implications resulting from this update report which is for information only.

## 12.4 Equalities

12.4.1 There are no equality implications resulting from this report, which is produced for information purposes only to update on the on-going work towards achieving the outcomes of the flood risk management strategy.

## 13.0 Conclusion

13.1 This report demonstrates that work towards the objectives of the flood risk management strategy are being successfully delivered, this is through the putting in place of guidance and processes relating to the Council's responsibilities and powers as LLFA.

13.2 Through the introduction of effective processes and guidance it is considered that all the functions of the LLFA are being delivered with a level of cohesion, ensuring that the risk is considered at all stages of development, from the planning of new development, through to the maintenance of existing drainage infrastructure and the identification and delivery of flood risk mitigation measures in our locations at highest risk.

## 14.0 Recommendation

14.1 It is recommended that Members note the contents of this report.

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Background papers relied upon in the preparation of this report:-

NY Flood Risk Strategy

NYCC SuDS Design Guidance

NYCC Culverting Works and Drainage Maintenance Protocol 2019