

Transport, Economy and Environment Overview and Scrutiny Committee

20 January 2022

Report of the Corporate Director - Business and Environmental Services

Update on the implementation of the North Yorkshire Local Flood Risk Strategy

1.0 Purpose of Report

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

2.0 Executive Summary

- 2.1 This report provides members with an update on the activities of NYCC officers towards the implementation and delivery of the North Yorkshire Local Flood Risk Strategy.
- 2.2 Objectives of the strategy are:
- i. A greater role for communities in managing flood risk
 - ii. Improved knowledge and understanding of flood risk and management responsibilities for all stakeholders, communities and the media
 - iii. Sustainable and appropriate development
 - iv. Improved knowledge of watercourse networks and drainage infrastructure
 - v. Flood risk management measures that deliver social, economic and environmental benefits
 - vi. Best use of all potential funding opportunities to deliver flood risk management measures
- 2.3 Positive actions has been taken towards the delivery of all objectives.
- 2.4 The Lead Local Flood Authority (LLFA) role of statutory consultee to the Local Planning Authority on surface water drainage continues to be the largest workload commitment of the team. The flood risk programme has continued to be delivered, most notably the last two years have seen the delivery of the Malton, Norton and Old Malton flood management scheme which at the time of writing is nearing completion.
- 2.5 The county has been impacted by two significant flood events since the last report to this committee in 2019, which has seen the work of the flood risk team diverted to the delivery of two statutory Section 19 investigations, in the Upper Dales following the July 2019 events and in the Aire Catchment following the February 2020 events respectively. This work has added to the understanding of flood risk management following the devastating impacts of the flooding in those impacted communities. It has recommended actions which would contribute to the better management of the associated risk in the future, leading to new locations being incorporated into the County Council's priority programme.
- 2.6 A review of the NY Local Flood Risk Strategy is presently underway. Public consultation on the revision is planned during 2022.

3.0 Key Background Information

- 3.1 North Yorkshire County Council (NYCC) is identified by the Flood and Water Management Act (FWMA) as the Lead Local Flood Authority (LLFA) 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 (FRM) for our administrative area. The NY 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 Local Flood Risk Strategy

- 4.1 The present flood risk strategy includes an action plan which specifies the objectives of NYCC as LLFA, and the wider partner Risk Management Authorities working in North Yorkshire to respond to the flood risk in the county.
- 4.2 The present strategy is reaching the end of its intended lifespan. NYCC officers are presently working to update the strategy, with particular reference to the action plan, as agreed by the Corporate Director, BES, in consultation with BES Executive members, at their meeting in August 2021.
- 4.3 This work involves consultation with all Risk Management Authorities, including City of York Council, given the action plan is a joint paper covering York and North Yorkshire, as opposed to the Council's administrative area. It is intended that there will be a public consultation on the revision of the strategy during quarter one of the next financial year.
- 4.4 This report will however update on delivery around each of the existing objectives, since the previous update report in April 2019.

5.0 Objective 1 "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 has continued to maintain links with a number of flood groups, and partnerships and is delivering its programme mindful of both the local knowledge and opportunities but also any mutual or wider benefits that can be delivered through a partnership approach. This community encouragement and support is embedded into the approach of the team.
- 5.2 The Resilience and Emergency Team work with communities to develop Resilience plans that communities have ownership of and can implement when flood warnings are issued.
- 5.3 The latest Environment Agency strategy has a renewed focus on resilience and community preparedness. Given the challenges of climate change, it is recognised that continuing to build perpetually higher defences is not a sustainable approach to flood risk management. The revision of the NY strategy will seek to reiterate this approach and offer the same important message.
- 5.4 Because of the dispersed nature of flood risk in North Yorkshire, business case preparation for a "traditional" flood scheme is often difficult given a flood scheme may have similar costs, regardless of whether it protects 1000 properties or 10, consequently favourable cost benefits cannot easily be demonstrated for some of our vulnerable communities.

- 5.5 North Yorkshire flood risk management delivery therefore has inevitably had to develop around a resilience approach to the management of flood risk, putting the authority in a good position to deliver work in line with national aspirations. Most notably the last two years have seen the preparation and delivery of a flood management scheme for Malton, Norton and Old Malton, with a value of approx. £1.1m, this scheme has seen the delivery of infrastructure to enable swift pumping operations, CCTV for better monitoring and the delivery of property flood resilience (PFR) to around 150 households and businesses. Community understanding and managing of its own risks is key to this approach.
- 5.6 Property Flood Resilience is the installation of flood protection measures at an individual property level, using measures such as flood barriers, to prevent water ingress, or options such as raising plug sockets, to reduce the extent of damage and making a return to the property swifter.
- 5.7 There are a number of locations on the present flood risk programme where PFR has been identified as the most suitable option for delivery. Consequently the team is presently working on a county-wide procurement exercise for the delivery of this, to achieve efficiencies in its delivery, through the EA framework.
- 6.0 Objective Two “Improved knowledge and understanding of flood risk management responsibilities for all stakeholders, communities and the media”**
- 6.1 It is fair to say that roles and responsibilities towards flood risk management are abstracted, with a variety of risk management authorities with different responsibilities for assets and flood response.
- 6.2 The two years since 2019 have seen North Yorkshire hit by two significant flooding events, both affecting several communities, followed by the requirement for a long duration of emergency pumping in Malton, Norton and Old Malton whilst the scheme was being delivered. This has meant the focus of communication and engagement for the flood risk management team has centred on these impacted locations.
- 6.3 NYCC in its role as LLFA has an over-arching coordination role towards flood risk management. As part of this role, NYCC has arranged engagement meetings with a variety of partners resulting from flood risk events in the upper Dales following the flooding in July 2019 and following the Aire flooding in 2020. The latter was made more challenging through covid lockdowns, meaning that opportunities for the public to speak with those responsible organisations had to be arranged through virtual meetings.
- 6.4 This is an important part of the aftermath of a response and ensures that the community has an immediate link with the appropriate RMA’s to progress work with. In addition, the work of the team and the publication of the outcome of the investigation has been well publicised, with the team working on various media releases to coincide with progress following the events, to ensure that communities better understand their risks and also have an awareness of work being undertaken on their behalf.
- 6.5 The team ensures that parish and town councils have significant opportunity to input into scheme preparation as part of the delivery of its programme. This ensures that not only is local knowledge captured, but also that community representatives are aware of responsibilities relating to its particular issues and are able to advise more widely on the progress of work.
- 6.6 In addition, the team has delivered training on LLFA matters to various member forums within NYCC and at district councils so that roles and responsibilities are better understood and recognised. The team has prepared presentations which it

may utilise for these types of sessions, given the abstracted nature of responsibility surrounding the work it performs.

7.0 Objective Three – “Sustainable and appropriate development”

- 7.1 In its capacity as LLFA, NYCC became statutory consultee on surface water drainage in major developments in 2016, however the council began receiving and commenting on applications in 2015, prior to this duty being statutory.
- 7.2 In 2019 the report to this committee explained that applications had tripled since NYCC began undertaking this role. During this time, major development across the county has increased significantly, in line with the government and local commitment to create more housing and growth opportunities.
- 7.3 Delivery of the LLFA role of statutory consultee to the planning process is the majority workload of the team. Table 1 below demonstrates the number of planning applications received annually since 2019.

Table 1 – Number of SuDS Applications received annually since 2019

Year	No of applications received
2019	647
2020	489
2021 (until creation of report on 22/12/2021)	438

- 7.4 As is clear from the figures, 2019 saw a peak in applications, however the work arising from 2019 has continued into 2020 and 2021 as applications progress through the planning process. On the horizon for the next few years the workload again is predicted to rise, with many significant sites at a strategic stage including West Harrogate, Green Hammerton Settlement, Selby Local Plan sites all making progress.
- 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 Over the past two years the team has worked with all LPA's in the NY area to deliver training events to officers and planning committee members, to increase understanding of LLFA stipulation and the basis of recommended conditions. The team is also involved in many high profile strategic planning applications and the local plan process.
- ## **8.0 Objective Four – “Improved knowledge of watercourse networks and drainage infrastructure”**
- 8.1 Since 2011, the council has undertaken flood investigation in over 200 distinct locations. Many of these investigations require ordinary watercourse and drainage mapping.
- 8.2 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.
- 8.3 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. In the past two years, most notably the team has overseen the delivery of a Scarborough Town surface water model, to better inform decisions to be taken over investment in infrastructure in the location.

- 8.4 In addition, as part of the Upper Dales Feasibility work, consultants WSP have investigated drainage systems in each of the locations identified to understand their function and where improvements can be made.
- 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, a better understanding of 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 Section 19 report on the incident, 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.
- July 2019 – Upper Dales Flooding
 - February 2020 – Aire Catchment Flooding
- 8.8 These formal reports are published on the NYCC website:
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 Flood and Water Management Act (2010). Assets identified through formal investigation as being integral to flood risk are recorded on this asset register.
- 9.0 Objective Five “Flood risk management measures that deliver social, economic and environmental benefits”**
- 9.1 As explained earlier in the report, flood mitigation and relief in rural, dispersed communities can be disproportionately expensive.
- 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 Flood Strategy, understanding and use of natural flood management 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 During 2021 LLFAs were invited to bid to the Resilience Innovation Fund to deliver projects which had a focus on demonstration of innovative flood management.
- 9.7 Working with City Of York Council, which led the project, NYCC successfully secured funding, to a value of approximately £6m for expanding understanding of the delivery of Natural Flood Management (NFM). The required Business Case is presently in preparation and a project manager has been appointed, employed by COYC.
- 9.8 Over a number of years the project will see the Swale, Ure, Nidd and Ouse catchments modelled for NFM opportunities. Projects will then be delivered which seek to slow the flow on an ambitious catchment-wide scale, to reduce the risk to downstream communities in York and North Yorkshire. In its later stages, the project will seek to identify a recompense from those communities benefitting to those upstream communities where the delivery has happened. This will add to the understanding of how NFM can be sustainably delivered and maintained. This is a common theme that arises in North Yorkshire, where its upstream communities, are often looked to by larger conurbations downstream in the catchment such as Leeds and York to provide downstream protection.
- 9.9 Away from this large project presently in development, the locations where schemes are in progress according to the criteria are demonstrated in Table 2 below, alongside an update of their status.

Table 2: NYCC Programme Scheme Update

Location	Scheme status
Malton, Norton and Old Malton	This scheme is nearly complete. Funded from partnership contributions from the LEP, EA FDGIA, NYCC and Ryedale District Council, it has seen the delivery of infrastructure to permit swifter pumping operations, CCTV for improved monitoring purposes and property level resilience measures delivered to approximately 150 houses and businesses at the highest risk. The ability to more swiftly commence pumping, when river levels rise, coupled with PFR to act as a last line of defence was demonstrated to be the most cost beneficial solution to manage the risk in the towns. NYCC and RDC have agreed to work in partnership to deliver pumping operations in the future.
Scarborough Town	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. WSP has been working on a surface water model of the drainage system around Scalby Road, although this has been subject to delays caused by Covid lockdowns. Work will now centre on understanding the model outputs, to look at where any investment would be required. External funding would be needed to progress identified outputs.
Great Ayton	£45k was contributed from the 17/18 FRM budget towards a multi-source study being developed in partnership with NYCC and Northumbria Water. Northumbria Water (NW) have led on delivery, through consultants Mott McDonald. £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. Options to progress the work are being discussed between interested parties based on the study work. The project is led by NW .
Rye Villages	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

	<p>Dale, Hovingham, Sinnington, Gilling East, and Kirkbymoorside, based on the residual risk of conurbations in the Rye.</p> <p>This work has been put on hold to permit the time-constrained delivery of the Malton, Norton and Old Malton project which was a priority for the authority. It is intended to commission the delivery of PFR identified through the feasibility work in 2022 as part of a county-wide procurement exercise.</p> <p>Additional feasibility work is needed in Kirbymoorside, to look in more detail at the drainage. A meeting with the Town Council is planned for January to look at potential natural flood management approaches as an alternative to drainage work, so this meeting will permit the critical path forward for scheme progression.</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>This scheme has been delayed due to the prioritisation of the Malton, Norton and Old Malton scheme however it is intended that work will move forwards in 2022.</p>
Filey	<p>This surface water scheme has been completed by Scarborough Borough Council.</p>
Tadcaster	<p>EA work in Tadcaster has been delayed by the requirement to build a new model, This has added approximately one year to the programme. The scheme is however fully funded and whilst it principally addresses main river risk, it is also intended that opportunities for surface water mitigation will be considered as part of the scheme.</p>
Upper Dales	<p>Escalated in the programme following the July 2019 flood events, Feasibility studies funded by the LEP Growth fund have been delivered during 2020. The villages targeted by this work are Reeth, Grinton, Arkengarthdale, Hawes, West Witton, Redmire, Bainbridge, Leyburn and Bellerby The various options for progression are to be presented to the community through a week of engagement in the first week of February. Whilst some focus on delivery of PFR and can be progressed through the intended county wide contract, other options will require more detailed work and funding avenues to be explored.</p>
Gildersleets	<p>This was added to the programme in 2021 following the publication of the 2020 Section 19 report as a project to commence in 2022/23. The team will look at proportionate mitigation solutions to address the repeat flooding which is experienced in Gildersleets.</p>
Lower Aire villages and Bolton Percy	<p>This was added to the programme in 2021 following the publication of the 2020 Section 19 report. The work will see a review of existing property level resilience offered in lower Aire villages with a view to delivering any identified gaps. The scheme will also work with the existing Bolton Percy Flood Group to identify and seek to deliver a bolstered flood management plan for the village.</p>
Brotherton	<p>Following recommendations in section 19 reports following the 2015 flood event and 2020 event NYCC has committed to the significant maintenance improvements required on the culvert in Brotherton which links to the IDB system and washlands. NYCC has commissioned the IDB to undertake this work which is being delivered at the time of writing.</p>

10.0 Objective Six – “Best use of all potential funding opportunities to deliver flood risk management measures”

10.1 Since 2019 progress against NYCC schemes has been made possible due to external funding from a variety of sources. Spend to date is detailed in Table 3 below.

Table 3: Funding breakdown of work delivered towards committed schemes during 2019 – 2021.

Scheme	Funding	Status
Malton, Norton and Old Malton	£500k Growth Fund £314k FDGIA £250k* NYCC £250k*RDC *These are both yet to be reconciled so will require adjustment when all invoices received.	Scheme nearly complete
Upper Dales Feasibility Studies	£250k Growth fund	Funding strategies will be required for preferred options to be progressed from the studies
Scarborough Town Model	£50k NYCC £15k DEFRA bid	Model is now complete. Funding strategy would be needed for any option arising from the outputs.
Saxton	£15k NYCC	NYCC funded work to look at proportionate options for progress in Saxton.
Rye Villages feasibility studies	£75k FDGIA	NYCC has allocated funding in programme to delivery of outcomes, the majority of which focus on PLR.
Brotherton Culvert repairs	£450k NYCC	NYCC funded. Work in progress.

10.2 Feasibility studies identify whether or not affordable schemes can be delivered to address flood issues in any given location. The delivery of preferred outcomes from studies will require additional funding to be sourced. Traditional funding for flood mitigation include the EA Flood Defence Grant in Aid and local Regional Flood and Coastal Committee levy which the County Council contributes towards.

10.3 In the last two years NYCC has also achieved Growth funding for the delivery of the Malton, Norton and Old Malton Flood Management Scheme and also for the Upper Dales Feasibility Studies. There is a recognition of the impact of repeated flood incidents and the risk the communities carry on the economic prosperity of these communities and the impact on growth opportunities and it is positive that flood mitigation can have outcomes which extend wider than the protection of properties and are in line with the county council’s wider growth objectives.

10.4 In 2021 it was agreed by the Corporate Director BES, in consultation with BES Executive Members that a reactive budget would be available to LLFA officers, for the delivery of low cost (<£10k) works identified during flood risk investigations which would give a benefit to flood risk. This permits the delivery of positive solutions outside of the more formal flood risk programme, permitting communities to receive benefits quickly where there are such solutions available. It is intended that £5k will be directed towards a drainage scheme in Scrayingham, during this financial year, with other contributions to the work committed by Yorkshire Water and also a potential contribution through Ryedale District Council’s flood grant. A local landowner is contributing in kind through maintenance and access arrangements.

11.0 Next steps

- 11.1 In the last update to the committee in July 2019 it was stated that a review of the flood risk strategy would be undertaken following the publication of the latest EA Strategy. Since that meeting the resource in the team had to be diverted to the undertaking of Section 19 reports following the widespread flooding in the Upper Dales and the Aire Catchment respectively at the expense of the review of the strategy.
- 11.2 This review work is however now underway, with public consultation planned on a draft document early in the next financial year. This will also include a comprehensive review of the actions completed against the strategy since it was published in 2016.

12.0 Financial

- 12.1 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.
- 12.2 Financial implications of schemes within the flood risk management strategy and details of external funding are contained within the body of the report.

13.0 Legal

- 13.1 There is no legal implication 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. Whilst there are financial matters contained within the report, these have already been noted in earlier reports and are addressed in the programme of work currently being undertaken.

14.0 Equalities

- 14.1 There is no equality implication 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. Appropriate equalities statements have been prepared and considered in relation to earlier reports, and are addressed in the programme of work currently being undertaken.

15.0 Conclusion

- 15.1 This report demonstrates that a significant body of work aimed at the achievement of the objectives of the flood risk strategy continues to be successfully delivered on the ground, enabled by the creation of guidance and processes relating to the councils responsibilities and powers as LLFA.
- 15.2 The strategy review is a valuable opportunity to build on this action and focus on the councils objectives for flood risk management in North Yorkshire, in line with national policy and best practice.

16.0 Recommendation

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

17.0 Reasons for Recommendations

- 17.1 For Members information, and to update on the actions that continue to be taken to deliver the NY flood risk strategy.

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

NY Flood Risk Strategy

Section 19 reports for the July 19 Upper Dales flooding and February 2020 Aire Catchment flooding

For further information contact the author of the report