

Local Flood Risk Strategy 2022-2027

Consultation Draft



Section 1: Policy Framework

**Why we need a strategy, what it contains,
and what we want to achieve**

Contents

1	About the North Yorkshire Local Flood Risk Strategy	3
1.1	Why do we need a strategy?	3
1.2	North Yorkshire County Council as Lead Local Flood Authority	4
1.3	What is the North Yorkshire Flood Risk Management Strategy?.....	5
1.4	What do we want to achieve?	5
1.4.1	A greater role for communities in managing flood risk.....	6
1.4.2	Improved knowledge and understanding of flood risk and management responsibilities ..	6
1.4.3	Sustainable and appropriate development utilising sustainable drainage where ever possible	6
1.4.4	Improved knowledge of watercourse networks and drainage infrastructure	6
1.4.5	Flood risk management measures that deliver social, economic & environmental benefits..	7
1.4.6	Best use of all potential funding opportunities to deliver flood risk management measures	7
1.5	Consultation and Communication Plan	7
1.6	Future Review of the Strategy	8
1.7	Glossary of terms and common abbreviations	9

1 About the North Yorkshire Local Flood Risk Strategy

1.1 Why do we need a strategy?

In 2008, Sir Michael Pitt published his final report 'lessons learnt from the 2007 floods'. His report, which called for fundamental changes in the way the county is adapting to the increased risk of flooding, set out 98 specific recommendations that were required in order to substantially improve the way we deal with flooding in the UK.

One of the main recommendations was that local authorities should play a major role in the management of local flood risk, taking the lead in tackling problems of local flooding and co-ordinating all relevant agencies.

In response to the Pitt report, the government introduced the Flood and Water Management Act (2010) (FWMA). The Act gave county councils and unitary authorities a new leadership role (and the new title, 'Lead Local Flood Authority') in local flood risk management, designed to work closely with a new national leadership role for the Environment Agency (EA).

One of the duties given to Lead Local Flood Authorities (LLFA) is the development of a Flood Risk Strategy for North Yorkshire (described in the legislation as a 'Local Strategy') in which the County Council must develop, maintain, apply and monitor a local flood risk strategy.

Since the strategy was first launched in 2015 there have been significant and widespread flood events across the county. On Boxing Day in 2015 over 260 properties were internally flooded across the county, 513 properties and places were flooded in Richmondshire in 2019 and in 2020 approximately 96 were internally flooded across the county. Successive and repeated flooding events across the county from multiple sources e.g. main river, surface water coupled with the increasing pressure on limited resources, has underlined the importance of developing a more integrated, comprehensive and risk-based approach for managing the risks of flooding, including identifying clear lines of responsibility and targets for improvement.

This changing world is reflected in the publication of the Environment Agency's National Flood and Coastal Erosion Risk Management (FCRM) Strategy for England and the soon to be updated Flood Risk Management Plans¹. As such, the existing objectives and actions within the Local Flood Risk Management Strategy have been reviewed against these new and emerging national strategies and policies to ensure they are aligned. The FCRM strategy is underpinned by the EA's vision which states

'A nation ready for, and resilient to, flooding and coastal change – today, tomorrow and to the year 2100' – EA national FCRM strategy

The Local Government review will also substantially change the democratic landscape. North Yorkshire County Council will bring together 7 districts and the County Council. The new council and York City

¹ North Yorkshire is predominantly in the Humber River Basin Management Plan (RBMP), with a small area to the North of the county falling into the Northumbria FRMP, and a small area of the West of the county included in the North West FRMP.

Council, for example, will continue its close working relationship, reflected in the joint action plan as water does not recognise political boundaries and there is an ongoing need to look at solutions on a catchment scale to benefit those in York who live downstream of those within the NYCC area.

1.2 North Yorkshire County Council as Lead Local Flood Authority

NYCC recognises it has an important and challenging role to play as Lead Local Flood Authority in facilitating the delivery of flood risk management in its area by co-ordinating the activities of all relevant agencies.

As well as this general responsibility the Act assigns specific management functions to NYCC relating to 'local flood risk' – defined by the Act as flooding from Surface water, Ground Water and Ordinary Watercourses. These functions are expressed as 'Duties' – something we are legally obliged to do – and 'Powers' to be used at the authority's discretion.

NYCC's risk management duties are:

- To develop, maintain and apply a Local Flood Risk Management Strategy
- To develop and maintain information on flooding from ordinary watercourse, surface water and groundwater
- To investigate incidents of flooding in its area where appropriate and necessary and to publish reports
- To maintain a register of structures and features which have a significant effect on flood risk
- To respond to major planning applications on matters of local flood risk in its capacity as Lead Local Flood Authority

NYCC's permissive powers are:

- The power to designate any structure or feature that affects flooding
- To consent to third party works on ordinary watercourses
- The power to carry out works to manage flood risk from surface water and from groundwater

NYCC's permissive powers under the Land Drainage Act are:

- Maintain and improve ordinary watercourses and build new works
- Serve notice on any person or body requiring them to carry out necessary works to maintain flow in ordinary watercourses

Although NYCC has powers to do works in ordinary watercourses, the responsibility for the maintenance lies with the riparian owner. Hence NYCC is only responsible for maintenance where it is the riparian owner.

1.3 What is the North Yorkshire Flood Risk Management Strategy?

The Strategy is a legal document which provides a framework for addressing flood risk across the county. The development, maintenance and implementation of a strategy for the management of Local Flood Risk are statutory duties for the LLFA under the FWMA.

The act defines 'Local Flood Risk' as flooding from ordinary watercourses, surface water and groundwater. However, we recognise the importance of dealing with flood risk from all sources in a coordinated way, and so our strategy has been developed to reflect this.

The North Yorkshire Local Flood Risk Management Strategy is comprised of the following elements:

Section 1: Overview of the North Yorkshire Local Strategy – Why we need a strategy, what it contains, and what we want to achieve

[Section 2: The North Yorkshire Flood Risk Management Action Plan](#) – The latest programme of activities for managing and reducing flood risk in North Yorkshire

[Section 3: The North Yorkshire Flood Risk Management Protocol](#) – How we investigate and assess flooding and flood risk, and the actions we will take

[Section 4: An Overview of Flood Risk in North Yorkshire](#) – A summary of the geographical and economic context, and an overview of the sources of flooding

[Section 5: Flooding and Drainage Legislation](#) – A summary of the legislation and associated guidance

[Section 6: Roles and Responsibilities for Flood Risk Management](#) – Sets out the flood risk management duties and responsibilities of organisations, businesses and individuals

[Section 7: Financing Flood Risk Management](#) – An overview of the opportunities for attracting funding and investment in flood risk management

1.4 What do we want to achieve?

We have identified six objectives to help secure effective flood risk management for communities and businesses in North Yorkshire

1. A greater role for communities in managing flood risk, an opportunity that can also be developed further through LGR
2. Improved knowledge and understanding of flood risk and management responsibilities within NYCC and amongst partners, stakeholders, communities and the media
3. Sustainable development² utilising sustainable drainage where ever possible
4. Improved knowledge of watercourse network 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 As defined within the 'National Planning and Policy Framework, Ministry of Housing, Communities and Local Government', 2021

These objectives are supported by an action plan of measures and actions that we are pursuing in order to ensure effective flood risk management across North Yorkshire. The action plan will be a living document that will be regularly amended and updated to reflect the changing nature of flood risk priorities.

1.4.1 A greater role for communities in managing flood risk, an opportunity that can also be developed further through LGR

A key challenge highlighted in our [Vision for North Yorkshire](#) is for the Council to play our part in helping develop the ability of communities to look after themselves to a greater degree than they already do. The development of community plans for managing and monitoring local flood risks is a key part of that vision.

We want to engage with communities through the development of tools and resources that will enable communities to identify flood risks, and to take action to improve adaptation and resilience or reduce those risks. Our [Action Plan](#) in Section 2 includes details of the steps we are taking to put this into place.

1.4.2 Improved knowledge and understanding of flood risk and management responsibilities

Effective flood risk management requires coordinated action and engagement from a wide variety of organisations and individuals. The complex nature of the causes of flooding, and also the complexity of the law in regard to flooding and drainage, mean that not everybody always understands or appreciates the roles that they should, or could, play in preventing or responding to a flood.

We want to play our part in increasing the knowledge and understanding of flood risk across the broadest possible range of organisations, businesses and communities through education, training and through the strong partnerships that we are developing with the other [Risk Management Authorities](#).

1.4.3 Sustainable development utilising sustainable drainage where ever possible

It is essential that new developments in North Yorkshire do not increase flood risk to existing communities and meet the highest possible standards for sustainability and environmental protection.

As statutory consultee to the planning process, we provide guidance and advice to Local Planning Authorities, developers and local communities in respect of individual planning applications where these effect or are affected by local flood risk. In doing so we seek to secure the application of high quality, multi-functional Sustainable Drainage Systems (SuDS), which follow the most up to date guidance, in new developments.

1.4.4 Improved knowledge of watercourse networks and drainage infrastructure

As the largest Council area in England, North Yorkshire also has one of the most extensive networks of watercourses and drainage features. Mapping of the critical features on watercourses, and of virtually the entire underground drainage network has never been tackled before, and so much of the things that contribute to, or protect communities from, flooding are not recorded.

It would be a huge and unrealistic goal to try to map and record all of these features and networks, but we are committed to capturing as much data and information as we can, particularly for locations where the risk of flooding is known to be the greatest.

Our [Action Plan](#) sets out the steps we are taking to develop and implement this important source of information.

1.4.5 Flood risk management measures that deliver social, economic and environmental benefits

Flood risk management measures are most effective and successful when they are integrated with the social, economic and environmental needs of the communities they sit within and serve.

We are committed to working with the widest range of partners and community representatives to achieve this, and to unlock the huge benefits that can be derived when multiple objectives can be delivered as part of a flood risk management initiative or scheme. This should include making reasonable efforts to align with the Council's current stated aims with regards to climate change, net zero carbon initiatives and net environmental gain.

Prioritising where these measures will be implemented is an important part of our role, to ensure that all available resources are used as effectively and efficiently as possible to help those communities and individuals with the greatest level of need.

To assist us in this task, we have analysed the predicted and historic flood risk throughout the County to inform future projects. Our [Action Plan](#) in section 2 of our Local Strategy details the steps we are taking to deliver these projects.

1.4.6 Best use of all potential funding opportunities to deliver flood risk management measures

To deliver effective flood risk management and to facilitate the delivery of initiatives and schemes that can reduce risk, we need to maximise the range and scale of the funding available.

We are committed to securing the highest possible levels of investment in flood risk management from the widest range of sources, through the identification of clear priorities and a well-structured programme that is attractive to both private and public sector funders.

[Section 7](#) of our Local Strategy highlights some of the funding opportunities that exist for addressing flood risk management.

1.5 Consultation and Communication Plan

The success of this strategy relies on effective partnership working and consultation with a wide range of partners and as such a great deal of discussion and agreement has been undertaken in the review of the action plan, strategy

The following engagement and information gathering activities have been carried out and drawn upon in the development of this document:

- Dialogue with individuals and communities

- Partnership working with other authorities
- Engagement with, and contribution to, regional and national discussions and initiatives
- Detailed investigation of historic flooding

We would now like to ask as many people as possible to feedback on this document, before it is formally adopted by North Yorkshire County Council.

We hope to be able to incorporate as much of your feedback in the final document, or in the documents and initiatives that support it, or in the programme of future opportunities and developments that will follow this review of our strategy.



1.6 Future Review of the Strategy

This document supersedes the previous strategy for North Yorkshire, which was published in 2015. This updated strategy will be monitored through overview and scrutiny processes and have an interim review and update in 2024 and a full review and update in 2027. The strategy will also be updated following the creation of the new unitary council for North Yorkshire in April 2023.

1.7 Glossary of terms and common abbreviations

Annual Exceedance Probability (AEP)	The chance of a flood of a given size happening in any one year eg. a flood with a 1% AEP will happen, on average, once every 100 years.
Catchment	A catchment is the total area that drains into a river or other drainage system.
Catchment Flood Management Plan (CFMP)	A strategic tool through which the Environment Agency works with other key decision-makers within a river catchment to identify and agree policies for sustainable flood risk management.
Climate Change	A long term change in weather patterns. In the context of flood risk, climate change is predicted to produce more frequent and more severe rainfall events.
Critical infrastructure	Infrastructure which is considered vital or indispensable to society the economy, public health or the environment, and where the failure or destruction would have large impact. This would include emergency services such as hospitals, schools, communications, electricity sub-stations, Water and Waste Water Treatment Works, transport infrastructure and reservoirs.
Department for Environment, Food and Rural Affairs (DEFRA)	The UK government department responsible for policy and regulations on the environment, food and rural affairs.
Environment Agency (EA)	The Environment Agency was established under the Environment Act 1995, and is a Non-Departmental Public Body of DEFRA. The Environment Agency is the leading public body for protecting and improving the environment in England and Wales today and for future generations. The organisation is responsible for wide ranging matters, including the management of all forms of flood risk, water resources,

water quality, waste regulation, pollution control, inland fisheries, recreation, conservation and Navigation of inland waterways. It also has a new strategic overview role for all forms of inland flooding.

Environment Agency Flood Zones

Flood zones on the maps produced by the Environment Agency providing an indication of the probability of flooding (from rivers and the coast) within all areas of England and Wales.

Exceedance flows

Excess flow that appears on the surface once the capacity of an underground drainage system is exceeded.

Risk of Flooding from Surface Water (RoFSW)

These maps are held by the Environment Agency and give a broad indication of the areas that are likely to be at risk from surface water flooding – ie areas where surface water would be expected to flow or pond.

Flood Risk Regulations

Legislation that transposed the European Floods Directive in 2009.

Flood and Water Act 2010 (F&WMA)

The Flood and Water Management Act clarifies the Management legislative framework for managing flood risk in England.

Floods Directive

The EU Floods Directive came into force in November 2007 and is designed to help Member States prevent and limit the impact of floods on people, property and the environment. It was transposed into English law in December 2009 by the Flood Risk Regulations.

Fluvial Flooding

Resulting from excess water leaving the channel of a river and flooding adjacent land.

Lead Local Flood Authority (LLFA)

The authority, either the unitary council, or county council, with responsibility for local flood risk management issues in its area, defined in the Flood and Water Management Act.

Local Development Framework (LDF)	A non-statutory term used to describe a folder of documents which includes all the local planning authority's Local Development Documents (LDDs) such as the Sheffield Local Plan. The local development framework will also comprise the statement of community involvement, the local development scheme and the annual monitoring report.
Local Flood Risk	The risk of flooding from ordinary watercourses, surface water and groundwater.
Local Resilience Forums (LRF)	LRFs are multi-agency forums, bringing together all organisations which have a duty to co-operate under the Civil Contingencies Act, and those involved in responding to emergencies. They prepare emergency plans in a co-ordinated manner.
Main River	Main Rivers are watercourses marked as such on a main river map. Generally main rivers are larger streams or rivers, but can be smaller watercourses.
Ordinary watercourse	An ordinary watercourse is any other river, stream, ditch, cut, sluice, dyke or non-public sewer which is not a Main River. The local authority has powers to manage such watercourses.
Pitt Review	An independent review of the 2007 summer floods by Sir Michael Pitt, which provided recommendations to improve flood risk management in England.
Pluvial flooding	Pluvial flooding (or surface runoff flooding) is caused by rainfall and is that flooding which occurs due to water ponding on, or flowing over, the surface before it reaches a drain or watercourse.
Probability of flooding	The probability or chance of flooding is used to describe the frequency of a flood event occurring in any given year, e.g. there is a 1 in 100 chance of flooding in this location in any given year. This can also be described as an annual probability, e.g. a 1% annual probability of flooding in any given year. (See AEP).

Preliminary Flood Risk Assessment (PFRA)

A high level screening exercise that brings together information on significant local flood risk taken from readily available information.

Resilience measures

Resilience measures are designed to reduce the impact of water that enters property and businesses, and could include measures such as raising electrical appliances, concrete floors etc.

Riparian owners

A riparian owner is someone who owns land or property adjacent to a watercourse. A riparian owner has a duty to maintain the watercourse and allow flow to pass through their land freely.

Risk

In flood risk management, risk is defined as the probability of a flood occurring combined with the consequence of the flood.

Risk Management Authority (RMA)

An authority that is able to exercise functions for managing flood risk as defined in the Flood and Water Management Act 2010.

Strategic Flood Risk Assessment (SFRA)

A planning tool that provides information on areas at risk from all sources of flooding.

Surface water flooding

Flooding that takes place from the 'surface runoff' generated by rainwater or snowmelt which is on the surface of the ground and has not yet entered a watercourse, drainage system or public sewer.

Surface Water Management Plan (SWMP)

A tool to understand, manage and coordinate surface water flood risk between relevant stakeholders.

Sustainable Drainage Systems (SuDS)

A sequence of physical measures for managing rainwater that are designed to mimic natural drainage processes by attenuating and conveying surface water runoff slowly compared to conventional drainage.

Water Framework Directive

The European Water Framework Directive (WFD) came into force in December 2000 and became part of UK law in December 2003. It provides an opportunity to plan and deliver a better water environment, focussing on ecology. The WFD

sets environmental and ecological objectives for all inland and coastal waters in the UK.

Local Flood Risk Strategy 2022-2027

Consultation Draft



Section 2: Action Plan



2. The North Yorkshire Local Flood Risk Strategy Action Plan

2.1 What is the Action Plan?

The Local Flood Risk Management Strategy Action Plan sets out the practical measures that the county council and partners will deliver to help manage flood risk. The action plan has been produced by the county council as a specific element of the Local Strategy, and as such it captures many of the tasks and activities associated with delivering our Flood Risk Management functions.

This Action Plan builds upon the policy framework set out in the accompanying document 'Managing North Yorkshire's Flood Risk', and is a living document which is regularly updated and amended to reflect the progress we are making and other necessary changes to the way we deliver flood risk management services.

3. How will updates to the action plan be managed?

Regular updates to the Action Plan will be carried out to reflect significant progress or changes to specific actions. Interim reviews of both the Action Plan and the Policy Framework will also be performed annually. This document contains a review of the Action Plan (first published in 2015) and policy framework in line with the six-year cycle set out in the Flood Risk Regulations.

The legislative landscape has changed with the publication of the revised National Flood and Coastal Erosion Risk Management Strategy (FCERM Strategy) for England and our strategy needs to remain consistent and relevant.

The FCERM strategy has a greater focus on resilience and adaptation measures to acknowledge the real and ongoing impact of climate change which are to be reflected in our objectives and action plan. In addition, the Environment Agency will be updating their Flood Risk Management Plans (FRMP) and we will update our action plans to ensure that they are fully aligned and complement one another.

4. How is the action plan structured?

The action plan has been developed and structured such that it links together and coordinates the actions of all risk management authorities. Each action is linked to our objectives, and is also related to the measures identified in the Flood Risk Regulations 2009.

5. Integration with EA Flood Risk Management Plans (FRMP)

This is the second edition of this Action Plan and precedes the full development, consultation process and publication of the FRMPs produced by the EA for compliance with The Flood Risk Regulations 2009).

The county council has identified considerable benefits from aligning our Local Strategy flood risk management action plan with those required for the Flood Risk Management Plans, particularly in terms of resource and investment planning. A review of our action plan will be undertaken once the outcomes of the updated Flood Risk Management Plan (FRMP) for 2021-2027 have been published). This will include aligning with the FRMP measures for North Yorkshire.

6. Actions for managing flood risk

There are different approaches to managing flood risk depending on the probability and consequences, as well as the technical nature of the risk. We have used the same structure that is used in the EU Floods Directive and that is being used in the development of the [second cycle FRMPs](#). This will help with the integration of solutions, and make feedback and monitoring more efficient. The following terms are used to group and describe the kind of actions that can be pursued:

- **Prevention of risk:** for example, by not building homes in areas that can be flooded we can prevent risks from arising in the first instance.

- **Protection from risk:** for example, by using water proof boards over doors and airbricks people can protect their properties from the damage caused by flood water.
- **Preparing for risk:** for example, by improving awareness of flood risk, or by providing warning and forecasting for floods, people can take precautions to safeguard their property.
- **Recovery and Review of risk:** for example, by improving access to tradesman and other services, recovery after flooding can be improved.

To manage flood risk effectively it can take a single action, or a combination of actions, and this depends on many factors. This includes the complexity of the risk, what's at risk, and also affordability of the action. All these factors need to be considered before actions can be implemented effectively. In order to ensure that all of these factors have been properly assessed, and to ensure the most equitable and effective distribution of resources, it is important to ensure that appropriate mechanisms for information capture, assessment, prioritisation and delivery are in place.

7. Our Priority Objectives

This plan focuses on the development and delivery of those sources of information and delivery mechanisms, relating each action to the four broad categories of measures above, and to the six North Yorkshire Flood Risk Management priority objectives:

1. Individuals and communities are empowered to take a proactive role in managing flood risk
2. Improved knowledge and understanding of flood risk and management responsibilities for all stakeholders, communities and the media
3. Promote 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

Details about our priority objectives can be found in the Policy Framework in Section 1 of our Flood Risk Strategy.

8. Local Flood Risk Strategy Actions

The first action plan published in 2015 contained a range of actions. In accordance with the Flood Risk Regulations (2009) we are required to assess the progress made towards implementing the actions. Some of the actions from the 2015 action plan are still relevant and ongoing and are included in the updated action plan, whilst others are completed and have been omitted from the updated action plan. A summary of the first action plan and progress made has been included in [Annex 1](#).

The updated Action Plan is overleaf:

	Source	Relevant Local Strategy Objective/s	Action	Timescale	Priority	Lead Organisation	Support Organisation (s)	Estimate cost range
Prevention	Surface water (SW)	2 and 4	Collate and analyse data on local flood risk. Use this real life information to validate and augment most recently EA modelling data and flood forecasting data.	Ongoing	High	NYCC	EA	£25k – 100k
	Surface water, ground water & ordinary water courses (SW/GW/OWC)	3 and 5	Continue to provide input to Local Development Plans prior to and after LGR. Respond to requests for input on planning consultations for major developments in accordance with national planning policy. Responses should reflect local community knowledge/comments on drainage and flood risk where there is a risk to people, property or infrastructure.	Ongoing	Medium	Local Planning Authorities	NYCC as LLFA	£5k
	Surface water, ground water & ordinary water courses (SW/GW/OWC)	3	Undertake periodical review of the North Yorkshire SuDS Design Guidance, which follows the most up to date guidance in response to local and national policies e.g. climate change, green infrastructure and water quality recognising the 4 pillars of SuDS; Water Quantity (flooding), Water Quality (pollution), Amenity and Biodiversity.	Ongoing	Medium	NYCC	Local Planning Authorities	£10k

	Source	Relevant Local Strategy Objective/s	Action	Timescale	Priority	Lead Organisation	Support Organisation (s)	Estimate cost range
Protection	SW/GW/OWC	6	Maintain a prioritised programme of flood alleviation and resilience projects in the context of the Regional Flood and Coastal Committee Medium Term (6 year) programme and other funding pots/opportunities. This will include Risk Management Authorities identifying opportunities to develop and co-fund/collaborate on projects to make best use of resources/funding opportunities/skills.	2022 onwards Annually reviewed	High	LLFA	RFCC/EA	£250k
	SW/GW/OWC	2 and 4	Improve and maintain the protocol and process for the sharing, recording and monitoring of assets implicated in significant local flood risk and inform communities, landowners and businesses of their maintenance responsibilities. This should include supporting partners in registering assets.	2022 onwards	Medium	LLFA	All RMAs	£5k

Local Flood Risk Management Strategy 2022-2027

	Source	Relevant Local Strategy Objective/s	Action	Timescale	Priority	Lead Organisation	Support Organisation (s)	Estimate cost range
Preparedness	All sources	1 & 4	Develop community engagement/software tools e.g. face to face and online to enable organisations and communities to provide information (before, during and after flood events) to better inform investigations/post flood work and assist communities in engaging with the decision makers in relation to flood risk and resilience.	2022-2027	Medium	LLFA	All RMAs	£10k
	All sources	2 and 4	Work with neighbouring LLFAs and partners to provide catchment based approaches to tackle flood risk across administrative boundaries. This will include working with landowners in the upstream areas and communicating benefits to the downstream beneficiaries e.g. Natural Flood Management	2022-2027	High	LLFA	EA/Neighbouring Authorities	£40k
	All sources	2	The LLFA will work with the Local Resilience Forum to ensure that their respective plans and programmes are aligned and key messages of public awareness of flood anticipation, preparation and resilience are joined up and consistent.	Ongoing	Medium	LLFA	Local Resilience Forum	£5k per annum
	All sources	1 & 2	Continue to promote property flood resilience; develop a pipeline of property flood resilience schemes across the County; provide ongoing support to communities through web support/workshops/meetings.	Ongoing	High	LLFA	EA	£100k per year

Local Flood Risk Management Strategy 2022-2027

	Source	Relevant Local Strategy Objective/s	Action	Timescale	Priority	Lead Organisation	Support Organisation (s)	Estimate cost range
Preparedness	All sources	2	Develop and maintain a more integrated partnership approach in response to flooding of people, properties and infrastructure. This should include: a clear understanding and alignment of those organisations in terms of roles and responsibilities; who to contact before, during and after a flood event and improved integration and support (including the use of technology) to enable the sharing of data and information to avoid duplication and make the best use of resources.	Ongoing	High	LLFA	All RMAs	£10k per year
	All sources	1 & 6	Improve and maintain the LLFA Flood Risk Management web pages within the NYCC website – with relevant information and links to partner organisations/other media outlets and signposting e.g. best practice case studies; success stories, funding opportunities/advice for communities. This should include an accessible summary of the local flood risk management strategy.	Ongoing	Medium	LLFA	All RMAs	£4k per annum
	All sources	1 & 2	Ensure future communication strategies reflect changes to local political landscapes e.g LGR.	Ongoing	High	LLFA	RMAs - District/Borough Councils	£5k per annum
	All sources	1 & 2	Continue to develop and input into Resilience and Emergencies Team (RET) Response Plans to reflect new national resilience strategies.	Ongoing	Medium	LLFA	Local Resilience Forum	£5k per annum

Annex 1

	Source	Relevant Local Strategy Objective/s	Action	Timescale	Priority	Lead Organisation	Support Organisation (s)	Estimate cost range	Update 2022
Prevention	Surface water (SW)	4	Collate and analyse data on local flood risk. Use this real life information to validate and augment most recently EA modelling data.	Ongoing	High	NYCC	EA	£25k – 100k	<p>Since 2015 the LLFA have received approximately 700 reports of internal flooding to properties and critical infrastructure from all sources of flooding and published 12 Flood Investigations reports. This real life information has been used to identify communities at risk and implement projects and programmes within affected communities.</p> <p>A review of the 'Risk of Flooding from Surface Water' mapping for Scarborough was undertaken and updated as part of the Defra funded 'Boosting Surface Water Action'.</p>
	SW	3 and 5	Develop standards, guidance and processes required to implement Schedule 3 of FWMA (SuDS and SABs)	2011-2015	High	NYCC	District Councils	£250k	Schedule 3 of the Flood and Water Management Act 2010 was not enacted by Government. Instead, NYCC as LLFA (with responsibility for local flood risk) became a Statutory Consultee to Planning for Major Developments on the 15 th April 2015.
	Surface water, ground water & ordinary water courses (SW/GW/OWC)	3 and 5	Provide input to Local Development Plans. Respond to requests for input on planning consultations.	Ongoing	Mod	Local Planning Authorities	NYCC as LLFA	£5k	<p>NYCC as LLFA has a team of officers to respond to all Major Planning Consultations and Local Development Plans in relation to surface, ground and ordinary watercourse flood risk. NYCC receive between 450 and 650 applications annually for comment.</p> <p>NYCC published the 'NYCC SuDs Design Guidance' to reflect the requirements of national policy and technical standards relating to the design of Sustainable urban Drainage Systems (SuDS). This guidance provides support to Local Planning Authorities, developers and stakeholders and is available on the County Council website. It has been updated in 2018 to reflect changing policy and technical requirements.</p>

Local Flood Risk Management Strategy 2022-2027

	Source	Relevant Local Strategy Objective/s	Action	Timescale	Priority	Lead Organisation	Support Organisation (s)	Estimate cost range	Update 2021
Protection	SW/GW/OWC	6	Maintain a prioritised programme of flood alleviation projects in the context of the Regional Flood and Coastal Committee Medium Term (6 year) programme	2014 onwards Annually reviewed	High	LLFA	RFCC/EA	£50k	<p>NYCC have worked closely with partner Risk Management Authorities to deliver flood alleviation schemes over the 6 year programme (2015-2021). The programme is reviewed and updated on an annual basis, based on identified risk. Funding for these schemes has been through a combination of Council Capital (District and County Council) Defra Grants such as Flood Defence Grant in Aid (FDGIA) and Local Levy Funding.</p> <p>Some highlights of the works carried out to date are:</p> <ul style="list-style-type: none"> • Malton/Old Malton/Norton Flood Alleviation Scheme – This has included the delivery of Property Flood Resilience to around 150 properties and the improvement in pump infrastructure to improve the safety, efficiency and deployment of the pump infrastructure. • Administered flood recovery grants for over 230 properties as a result of county wide flooding in 2015. • Upper Dales - £100k (LEP Contribution). A Feasibility study has been completed for flood alleviation/resilience for 9 villages/towns as a result of flooding that occurred in 2019 and prior to this. • Brotherton Culvert Improvements following repeated flooding events to properties.
	SW/GW/OWC	6 and 5	Deliver a programme of prioritised catchment level flood risk management projects	2015-2020	High	LLFA	EA/Districts	TBC (£50million programme over 10 years identified)	The Lead local Flood Authority changed it's approach after initial cost benefit analysis showed that the creation of catchment scale plans would not be cost beneficial in terms of funding through Flood Defence Grant in Aid (FDGIA). Therefore the evidence base for identifying and delivering flood risk schemes has been based on 700 (approx.) internally flooded properties included in the S19 Flood Investigation Reports.
	SW/GW/OWC	4	Develop a protocol and process for the recording and monitoring of assets implicated in significant local flood risk	2014/15	Mod	LLFA	All RMAs	£50k	The County Council's protocol involves the recording of assets that are associated with the internal flooding of property or critical infrastructure (as defined by the NYCC Flood Investigation Protocol). The record of assets include identifying details of ownership and condition.

Local Flood Risk Management Strategy 2022-2027

	Source	Relevant Local Strategy Objective/s	Action	Timescale	Priority	Lead Organisation	Support Organisation (s)	Estimate cost range	Update 2021
Preparedness	All sources	2 and 4	Create Catchment Plans – providing a high level assessment of flood risk and potential risk management actions/measures for each catchment within NYCC authority area	2013-2015	High	EA	NYCC	£50k	The LLFA changed it's approach after initial cost benefit analysis showed that the creation of catchment scale plans would not be eligible for funding through Flood Defence Grant in Aid (FDGIA). Therefore the evidence base for identifying and delivering flood risk schemes has been through the 700 internally flooded properties included in the S19 Flood Investigation Reports.
	All sources	2 and 4	Work with neighbouring LLFAs to Create/provide input to Catchment Plans for those catchments which cross into other authority areas – providing a high level assessment of flood risk and potential risk management actions as appropriate	2014 - 2020	High	LLFA	EA/Neighbouring Authorities	£20k	<p>York City Council and North Yorkshire County Council (NYCC) were successful in progressing to the final stage of the Government's 'Flood and Coastal Resilience Innovation Programme' which will unlock up to £6 million. A project is currently being developed by York City Council and NYCC to better protect properties in York and will include targeting landowners with financial incentives to flood land in the upstream catchment. This projects learning outcomes will be utilised to identify opportunities to replicate this approach within other catchments.</p> <p>NYCC support and part fund the Derwent Catchment Partnership which delivers a catchment based approach to protect the water environment including reducing flood risk.</p> <p>NYCC are also a partner within the Dales to Vale Rivers Network which provides a catchment approach to the river network.</p> <p>NYCC are also a partner of the Wharfe Catchment Partnership.</p>
	All sources	2	Provide support and updates to the Local Resilience Forum Response Plans	Ongoing	Medium	LLFA	All RMAs	£5k per annum	NYCC as LLFA have worked closely with the Emergency and Resilience Team at NYCC and members of the Resilience forum to support communities and ensure that they are more resilient to local flood risk. A good example of the County Councils close working relationship is the partnership with the County Council resilience/operational teams in supporting communities before, during and after the flood events in Malton.
	All sources	1	Develop a Flood Risk Management Toolkit of practical measures that can be used to support local communities to manage flood risk	2014/15	Medium	LLFA	All RMAs	£30k	<p>The Defra funded 'Yorkshire Property Flood Resilience (PFR) Pathfinder' project has produced a range of tools and resources to support local communities within North Yorkshire.</p> <p>In addition, there are also a range of national, regional and local organisations and associated websites that provide practical help and advice to communities within North Yorkshire.</p>

Local Flood Risk Management Strategy 2022-2027

	Source	Relevant Local Strategy Objective/s	Action	Timescale	Priority	Lead Organisation	Support Organisation (s)	Estimate cost range	Update 2021
Preparedness	All sources	1 and 5	Develop a programme of rollout of the Flood Risk Management Toolkit to communities across the authority area	2015/2020	Medium	LLFA	All RMAs	£50k per annum	The Defra funded 'Yorkshire Property Flood Resilience (PFR) Pathfinder' project has produced a range of tools and resources to support local communities within North Yorkshire. In addition, there are also a range of national, regional and local organisations and associated websites that provide practical help and advice to communities within North Yorkshire.
	All sources	1 and 5	Support Schools and other educational facilities to increase public awareness of flood anticipation, preparation and resilience	Ongoing	Medium	LLFA	Emergency Planning / EA	£2k per annum	The Defra funded 'Yorkshire Property Flood Resilience (PFR) Pathfinder' project has produced a range of tools and resources to support local communities within North Yorkshire. In addition, there are also a range of national, regional and local organisations and associated websites that provide practical help and advice to communities within North Yorkshire. These have been listed on the North Yorkshire website.
	All sources	1	Improve and maintain the LLFA Flood Risk Management web pages with the NYCC website – with relevant information and links to partner organisations	Ongoing	Medium	LLFA		£2k per annum	The website has been updated on an ongoing basis. This includes the uploading of flood investigations reports, updates to protocols and guidance.
	Ground Water (GW)	2 and 4	Develop a pilot monitoring and warning system for Ground water flood risk - with a view to deployment at appropriate key locations across the county	2014/16	Medium	LLFA	EA / District LA	£30k	Following significant flooding in Malton and Norton from a combination of surface water, ground water and main river NYCC as Lead Local Flood Authority have worked alongside partners to develop an early warning system for communities to better prepare for flooding from these sources.

Local Flood Risk Strategy 2022-2027

Consultation Draft



Section 3: Reviewing Flooding Incidents

How we review and prioritise flooding incidents, and what happens next when a problem is identified

Contents

3	Reviewing and Investigating flooding incidents in North Yorkshire.....	3
3.1	Establishing the scale of the issue.....	3
3.2	Response Options.....	4
3.3	Formal Investigations.....	5
3.3.1	Background.....	5
3.3.2	S.19 Lead local authorities: duty to investigate.....	6
3.3.3	Defining 'Necessary or Appropriate'.....	6
3.3.4	Characteristics of a Flood.....	6
3.3.5	Process for Determining Whether a Formal Investigation is Appropriate.....	8
3.4	Being clear about our role.....	9

3 Reviewing and investigating flooding incidents in North Yorkshire

The Flood and Water Management Act 2010 identifies a crucial role for Lead Local Flood Authorities in the review and investigation of flooding incidents and flood risk. Whilst we can't investigate every case in detail, we are committed to helping communities and individuals to understand as much as possible about the nature of the risks they might face.

Our Flood Risk Management Investigation Protocol helps us to identify and prioritise those locations at the greatest risk from flooding.

However, we are also aware that communities that have suffered flooding in the past, though they might not now carry the greatest risk of future flooding, are often the most proactive in contacting the authority seeking help and protection.

This protocol sets out how we intend to strike the right balance between focussing on those communities that we believe are exposed to the greatest level of threat, whilst also recognising the importance of responding effectively to direct requests from communities and members of the public.



3.1 Establishing the scale of the issue

Flooding can cause a [variety of problems](#), and our expertise is increasingly sought for a wide range of flood-related issues. The first stage in assessing an issue is to determine the scale of the flooding, to establish whether our involvement can be justified as Lead Local Flood Authority.

Though we can often provide valuable guidance and assistance to any flooding query, there is a significant amount of effort required to establish all the facts relating to a particular issue. We have to be satisfied that the impact of the flooding is significant enough for our resources to be diverted from the delivery of other planned flood risk reduction activities, before launching a more significant review.

It is not possible to determine a quantitative measure of significance, but the following features should be considered when determining the scale of our response:-

- Number of properties believed to be affected (internal flooding)
- Number of risk management authorities likely to be involved
- The scale of the impact on critical infrastructure
- The reported frequency of the issues
- The reported circumstances that generated the incident

3.2 Response Options

Depending upon the outcome of the desktop assessment of the initial evidence base, a wide range of potential responses can be considered, the most common of which are set out in the table below.

General description	What we will do
Flooding reported with no internal property impact, and no significant impact on infrastructure. One-off or relatively infrequent occurrences associated with heavy rain	Respond with a clear indication of our role, register the incident(s), request any further evidence, pass details to other relevant Risk Management Authorities (RMAs), refer to longer term strategic review, provide details of community planning, offer guidance for riparian owners, consider informing the elected member
Flooding reported with either limited internal property impact, or moderate impact on infrastructure as a one-off or relatively infrequent occurrences associated with heavy rain, OR, relatively frequent occurrences that are causing significant inconvenience or distress	As above, but with a more active exploration of the circumstances surrounding the issue, including direct discussion with RMAs. Generate a letter in response that sets out the current protection being provided, any initiatives that are currently being pursued, and where appropriate any future actions that could be considered Active engagement with elected members and senior management report
Flooding reported with either several internal properties impacted, or a significant impact on infrastructure as a one-off, OR, relatively frequent occurrences affecting a single property	As above, but in these circumstances the issue will be given greater priority and we would consider taking a more direct leadership role in the pursuit of solutions In these circumstances we would also consider raising a 'hot spot' scheme via the local levy, national partnership funding, or from our own flood reserve
Significant property flooding and impact on critical infrastructure	As above, but with a significant communication plan. It is likely that a formal investigation will be carried out in accordance with Section 19 of the Flood and Water Management Act.

3.3 Formal Investigations

Occasionally, the severity or nature of a flooding incident will generate the need for a formal investigation to be carried out. This section sets out the criteria that we consider when assessing whether a formal investigation under s.19 will be carried out.

The policy has been developed in partnership with the Environment Agency and Yorkshire Water, reflecting the critical nature of partner organisations in the investigation process. The policy recognises the benefits to lead local flood authorities (LLFAs) and their partners that a consistent platform across the region for the development of investigation policies can provide.

One of the key aspects of the policy is the suggestion that it should recognise and clearly articulate that not all flooding will require a formal investigation under the Act. Where the criteria for a formal investigation are not met, North Yorkshire County Council might nonetheless progress the flooding issue though not as a S19 investigation, recognising the broader responsibility to manage flood risk in its area as LLFA.

3.3.1 Background

In his review of the summer 2007 floods, Sir Michael Pitt recommended that local authorities should be given a duty to investigate flooding.

His recommendation came in response to complaints from flood victims that they had struggled to get satisfactory responses to their questions regarding the causes and responsibility for flooding affecting their properties and communities.

The Flood and Water Management Act 2010 received Royal Assent on 08 April 2010¹. The Act implements the recommendations made by Sir Michael Pitt which require primary legislation, including the recommendation that local authorities should have a duty to investigate flooding.

3.3.2 S.19 Lead local authorities: duty to investigate

Section 19 of the Act states the following:

Local authorities: investigations

(1) 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.

(2) Where an authority carries out an investigation under subsection (1) it must—

(a) publish the results of its investigation, and

(b) notify any relevant risk management authorities.

3.3.3 Defining ‘Necessary or Appropriate’

The first test applied to a flooding incident in terms of the need for a formal investigation relates to the degree of support and openness being demonstrated by the relevant Risk Management Authorities. Wherever possible, it is our intention to carry out flood incident reviews in partnership with other Risk Management Authorities before we consider the application of the formal section 19 process.

Where we consider that a formal investigation might be necessary or appropriate, we will then consider the nature and scale of the incident against the following characteristics. This policy does not set specific quantitative thresholds.

3.3.4 Characteristics of a Flood

The following ‘characteristics of a flood’ have been identified which can be used to determine whether or not it is appropriate to generate a formal s.19 Investigation in response to a flood.

- Level of support and engagement from other Risk Management Authorities
- Number of properties internally flooded
- The depth, area or velocity of flooding reported
- The frequency of flooding in a given location
- The nature or extent of critical infrastructure impacted by the flood
- The nature or source of requests for an investigation received by NYCC
- Whether the flood relates to a known issue

Number of properties affected - Flooding which does not impact upon a property internally will not generally be considered to require formal investigation. At the other end of the spectrum, the internal flooding of more than 100 properties would seem certain to meet any LLFA's definition of necessary or appropriate.

Depth or velocity of flooding – NYCC will consider this characteristic of a flood to reflect the increased risk to life and limb associated with deep or fast flowing water

Frequency of flooding – Flooding that would not reach the threshold for investigation, when it occurred as an isolated incident, might warrant consideration if repeated incidents are experienced. The number of repeats required to trigger formal investigation would need to reflect the severity of the flooding.

Critical Infrastructure – NYCC will take into account the impact of the flooding upon critical infrastructure, including circumstances which could be considered to be a 'near miss'.

Investigation requests - To reflect democratic principles, NYCC may wish to consider whether requests made by their elected members, committees, or other democratically elected bodies, will be considered as a factor in determining whether a formal investigation should be carried out.

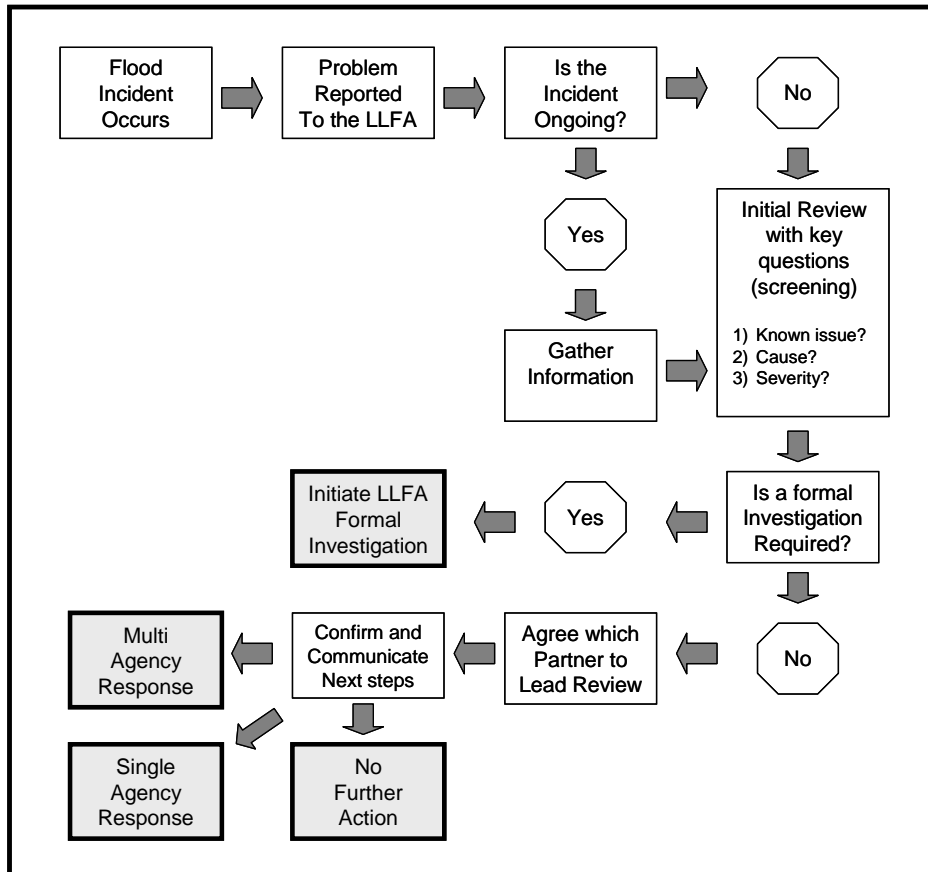
Known flooding - In relation to known flooding issues, an investigation may still be appropriate, but NYCC may wish to use its discretion and judgement to avoid the expense associated with a formal investigation in circumstances where the nature of the issue is already well established. An example of where this might be appropriate would be flooding from a main river for which the EA have already developed detailed models and a comprehensive suite of risk management responses.



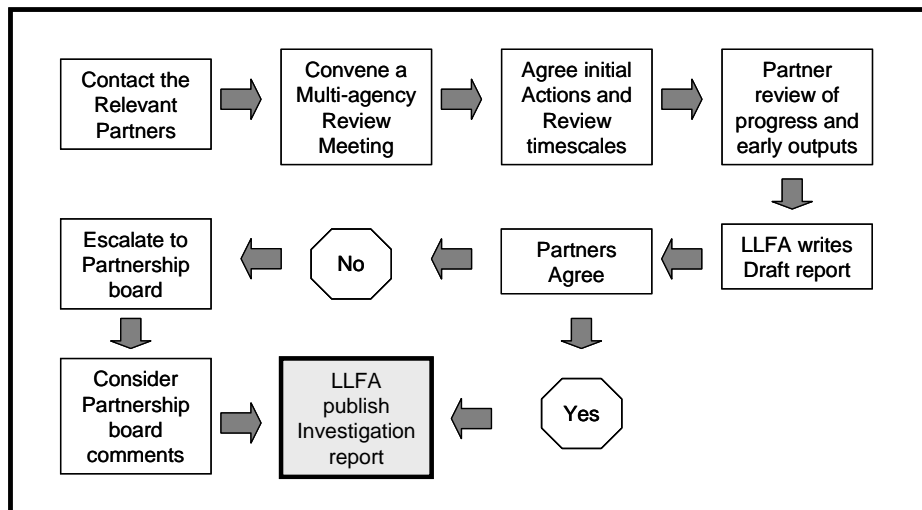
3.3.5 Process for Determining Whether a Formal Investigation is Appropriate

The investigation of flooding often requires input from partner organisations, and it may often be more appropriate for them to lead the investigation where the cause is believed to relate to their assets or areas of responsibility.

Establishing whether the formal process is required



NYCC Formal Investigation Process



3.4 Being clear about our role

3.4.1 Delivering our Statutory Duties Effectively and Efficiently

Flooding is often caused by a complex range of factors, and investigating flooding can therefore be a very time consuming and costly exercise. It is therefore critically important that the County Council uses the resources available in the most effective way possible, and in the way that the law requires us to.

Regrettably, this may mean that we will not always be able to investigate all incidents reported to us as flooding, or we may not be able to include in our investigations all the things that communities or individuals may want us to.

3.4.2 Who is responsible for flooding?

It is critically important that the extent and nature of our role in flood risk management is understood and appreciated by the communities and individual residents affected by flooding. It is equally important that we set out the roles that others, including riparian owners, are required to play. [Section 6](#) of our Local Strategy provides a description of each of the organisations and other parties involved in the management of flood risk.

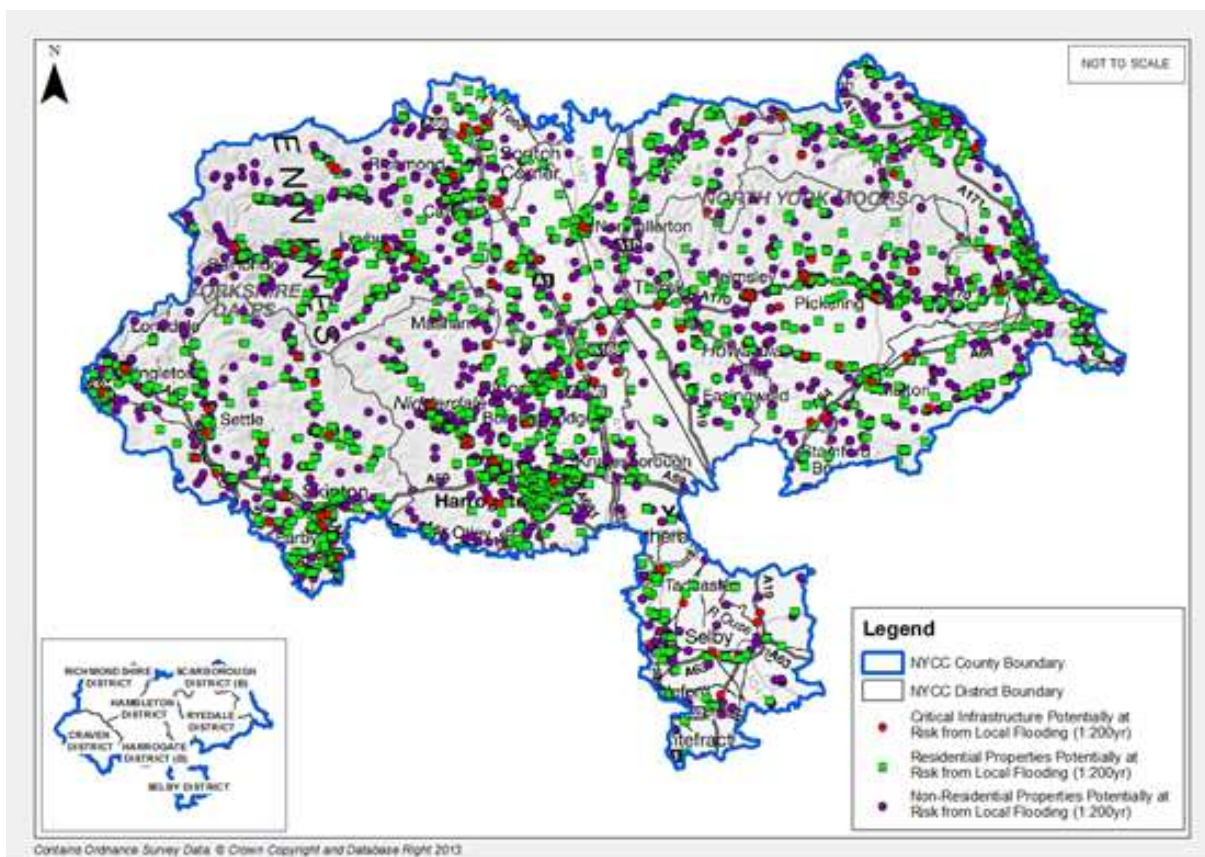
3.4.3 Capturing information about flooding

Whatever the scale or nature of a flooding incident, we are always keen to receive details and information regarding flooding incidents. Information on flooding incidents can really help us to understand how the drainage network operates and where weaknesses might exist.

This information is then used in conjunction with our own records and with predictive modelling to determine the nature and priority of our risk management activities, even if a specific project to deal with the flooding issues in a specific location is not possible straight away.

Information on recent or historic flooding incidents, including reports, photographs, maps and video clips can be sent to floodriskmanagement@northyorks.gov.uk

Local Flood Risk Strategy 2022-2027 Consultation Draft



Section 4: Flooding in North Yorkshire

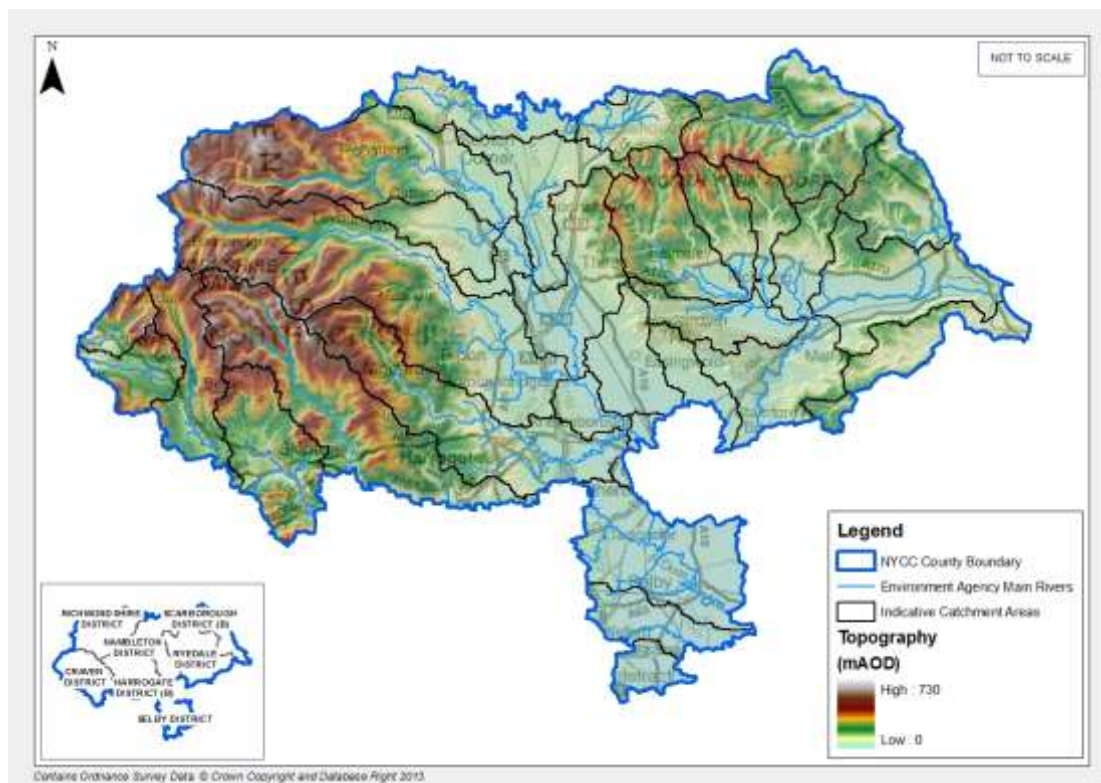
Contents

4	Overview of the Authority Area	3
4.1	Land use and population	4
4.2	Economy	5
4.3	Understanding flood risk across the county area.....	5
4.4	Flood Source Descriptions	6
4.4.1	Ordinary Watercourses	6
4.4.2	Surface Water	6
4.4.3	Groundwater	6
4.4.4	Local Flooding.....	6
4.4.5	Main Rivers	6
4.4.6	Sewer Flooding.....	6
4.5	Ordinary Watercourse Flooding.....	6
4.6	Surface Water Flooding.....	7
4.7	Groundwater Flooding.....	8
4.8	Local Flooding	8
4.9	Main River Flooding in North Yorkshire.....	10
4.10	Sewer Flooding	10

4 Overview of the Authority Area

The County of North Yorkshire extends over 8,053 km² from the North Sea to Lancashire and from County Durham to Selby. The topography of the land varies from the high points of the Moors and Dales to the low lying Vales of Mowbray, York and Pickering.

The area is drained into the Humber Estuary to the south and directly into the North Sea to the east by over 1700km of main rivers and nearly 23,000km of ordinary water courses and land drainage.



North Yorkshire topography Main Rivers and catchment boundaries are also shown

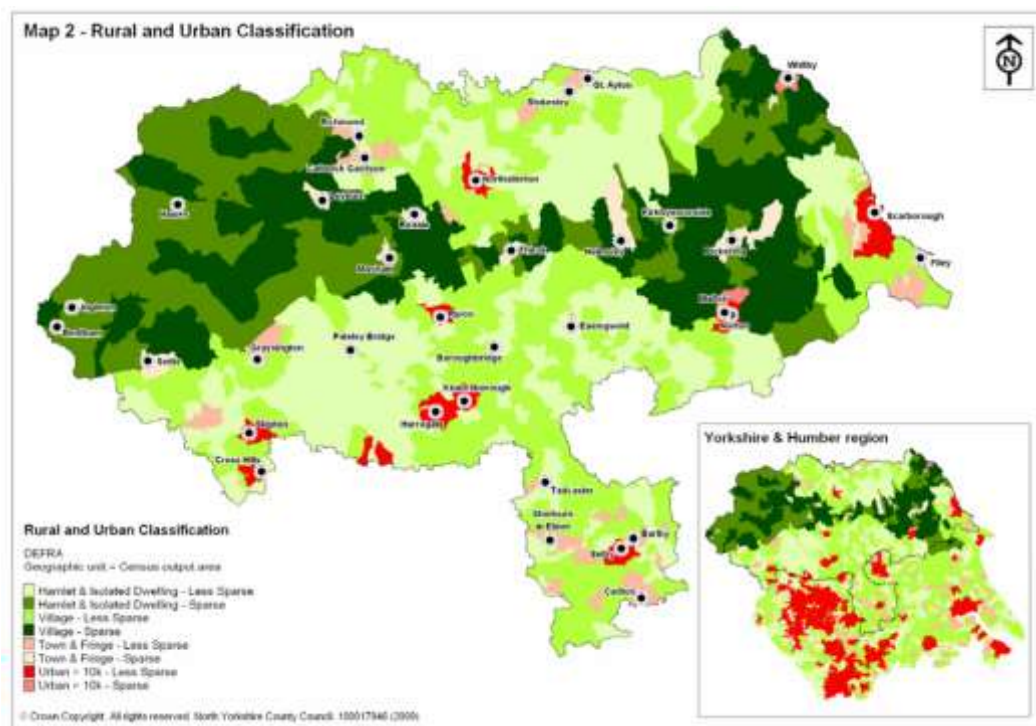
In the upper catchments the higher elevation and steeper terrain can lead to more rapid run off from the surrounding land, and a faster rise in the levels of local water courses. The flood risk tends to be from small watercourses and/or surface water occurring as a result of localised rainfall events and when specific local triggers within the catchment are reached. The duration of flooding that is experienced can range from a few hours to 1 or 2 days depending exactly where it occurs in the catchment. Particular challenges are associated with managing flood risk in upland catchments, where flooding incidents carrying a high level of hazard to the community can occur with very limited warning, and where the limited transport network, and isolated and dispersed nature of the population, can make emergency response difficult.

In the middle and lower parts of the catchments, the terrain becomes less steep and this is where several larger watercourses exist. The types of flooding that are experienced can be much more varied with complex interactions between different flood sources. Some of the larger watercourses can have high water levels for several days after rain has fallen on the upper parts of their catchments. These levels are monitored by a network of [EA gauges](#) throughout the county.

The longer response times of the middle and lower parts of the catchments enable earlier and more accurate forecasting of flood risk from the river system in these parts of the county. However, the high river levels over these longer durations can lead to a complex array of other flooding issues in surrounding local drainage systems. These areas also tend to be more populous, and the extended duration of raised water levels tends to lead to much greater levels of loss and damage to property.

4.1 Land use and population

North Yorkshire has a population of 604,900 (ONS Figures 2016) spread across a predominantly rural area. The 2004 Defra 'rural definition' study show North Yorkshire to be one of the most rural and sparsely populated counties in England with agricultural land, moorland and national parks making up approximately 77% of NYCCs administrative area.



Rural and urban classification in North Yorkshire

Within North Yorkshire the boroughs of Harrogate and Scarborough are home to 44% of this population between them; there are 38 market towns and larger settlements

that have a population of over 2,750 and the remainder of the population live in small villages and hamlets. The county's size and the disparate nature of its population is a key challenge in terms of providing local government functions, including the provision of flood risk management services.

4.2 Economy

Due to the natural geography and history of the County, tourism and agriculture form a key part of the economy and are dominant in the market towns and coastal areas. Employment is also provided by manufacturing and the public sector and the Ministry of Defence also have number of their bases within the County, though these are still generally consistent with the picture of a highly dispersed population.

Since funding for flood risk mitigation typically favours areas where the concentration of risk is high, and is also weighted in favour of areas where indicators of poverty and deprivation are similarly concentrated, our County faces a particularly significant challenge in terms of attracting funding for flood risk management. The funding system also anticipates contributions from the beneficiaries of flood defence initiatives, and in particular significant business interests, which again are difficult to secure when the direct risks and benefits are so widely distributed.

4.3 Understanding flood risk across the county area

Many areas across the county have been impacted by flood events in the past. Records of many incidents have been captured and collated, though it is not a complete record. In particular, records from more localised events, involving smaller water courses, surface runoff and groundwater have not always been captured.

To provide a more consistent basis for our future flood risk management activities, we have undertaken a County wide assessment to identify areas at greatest risk of flooding and to identify the different sources of flooding. We have used those historic flooding records that do exist, provided by flood risk partners and impacted communities, together with predicted flood risk from modelling carried out by the Environment Agency for rivers, surface water and coastal flooding. In addition to this mapping, we also undertook a further modelling exercise to identify the most likely flow routes for surface water during and after extreme rainfall events.

The results of this exercise have provided us with an initial high level assessment of the risk, scale and characteristics of flooding that could occur at any location in the County, from which we have identified a prioritised list of further detailed studies and a series of interventions and projects in specific locations.

The exercise has highlighted a significant level of risk to property and critical infrastructure, including:

- Approximately 13,800 residential properties;
- Approximately 6,500 non residential properties;
- Many parts of the highways and rail network;
- Approximately 50 items of critical infrastructure (hospitals, emergency service facilities, national power, energy and water/sewerage infrastructure, government offices, schools and nurseries)

4.4 Flood Source Descriptions

4.4.1 Ordinary Watercourses

An Ordinary Watercourse is every river, stream, ditch, drain, cut, dyke, sluice, sewer (other than a public sewer) and feature through which water flows, which does not form part of a Main River.

4.4.2 Surface Water

Surface water is essentially the water that cannot infiltrate into the ground or find its way to a watercourse or drainage system. It is normally observed flowing across the land surface towards natural low points, or, ponding in such low points.

4.4.3 Groundwater

Water held and flowing within permeable rocks and within the soil below the normal ground level is termed groundwater. Groundwater flooding occurs when the level of the water in the ground – sometimes referred to as the water table - rises above the ground level, or infiltrates underground structure which is designed to be dry. Groundwater flooding won't typically occur unless sustained periods of heavy rainfall over several months is experienced.

4.4.4 Local Flooding

A term given specific meaning by the FWMA being flooding from either one, or any combination of, Ordinary Watercourses, surface water and groundwater. NYCC as Lead Local Flood Authority has powers and duties for the management of the risk of flooding from these sources.

4.4.5 Main Rivers

Main rivers are the larger rivers and other critical watercourses, designated as such and managed by the Environment Agency. Main Rivers can also include any structure that controls or regulates the flow of water in, into or out of the channel.

4.4.6 Sewer Flooding

Flooding from any part of a sewerage system caused either wholly or partly by an increase in the volume of rainwater entering or otherwise affecting the system.

4.5 Ordinary Watercourse Flooding

North Yorkshire is drained by an extensive network of ordinary watercourses that are not classified as main rivers. They generally follow natural and historic drainage routes and range from being well-known and named becks, to underground networks of culverts and pipes which may have evolved over centuries, and for which there may be little or no record.

Landowners, be they individuals or organisations, are responsible for the upkeep of all watercourses and for maintaining the flow in them, as riparian owner (see Section 4.13). However, as many watercourses have been culverted or piped in the past, landowners may not be aware of their existence until a problem occurs. Lack of maintenance leading to blockages and collapse can pose a significant flood risk resulting in surcharge, overland flow and surface collapse.

Identifying these networks is a huge task that presents significant practical challenges and significant potential costs. Nonetheless, in areas where the flood risk is significant, the location and mapping of critical assets has a great potential for assisting in the management of flood risk by highlighting those risks and facilitating preventative actions. NYCC as LLFA intend to take a systematic, risk based approach to this task, identifying those areas of greatest risk and working with riparian owners and local communities to manage that risk. This will be supported by the gathering of information on local flood risk incidents and the development of the Asset Register (see section 5.3).

4.6 Surface Water Flooding

Surface water flooding is typically the result of high intensity, localised rainfall on either impermeable or saturated surfaces. The sheer volume of water over a short time period can surpass the rate at which the ground can absorb it and outstrip the capacity of the immediate drainage networks and watercourses.

The storm water will find and flow along the easier flow routes, often the road network and ponds in low points in the topography. Historically this kind of flooding has been associated more with urban areas where there are greater areas of impermeable surface. However, investigations into recent flooding events in the county have shown that surface water runoff is an increasing issue in rural areas.

This was particularly evident in 2012 and more recently in 2019 in the Dales , when high rainfall, month on month from late spring and throughout the winter months meant that the ground became saturated such that, in places, even modest rainfall could not soak in, forming overland flow and causing property and highway flooding. In some areas this water carried high levels of silt and debris into highway and private drainage systems causing blockages which restricted the performance of a system already under great strain.

The localised nature of this type of flooding makes it difficult to predict with certainty. However the Flood Forecasting Centre, established following the 2007 floods, does

provide extreme rainfall event forecasting (www.ffc-environment-agency.metoffice.gov.uk/services) and is now supporting partner agencies in planning emergency responses for such events.

4.7 Groundwater Flooding

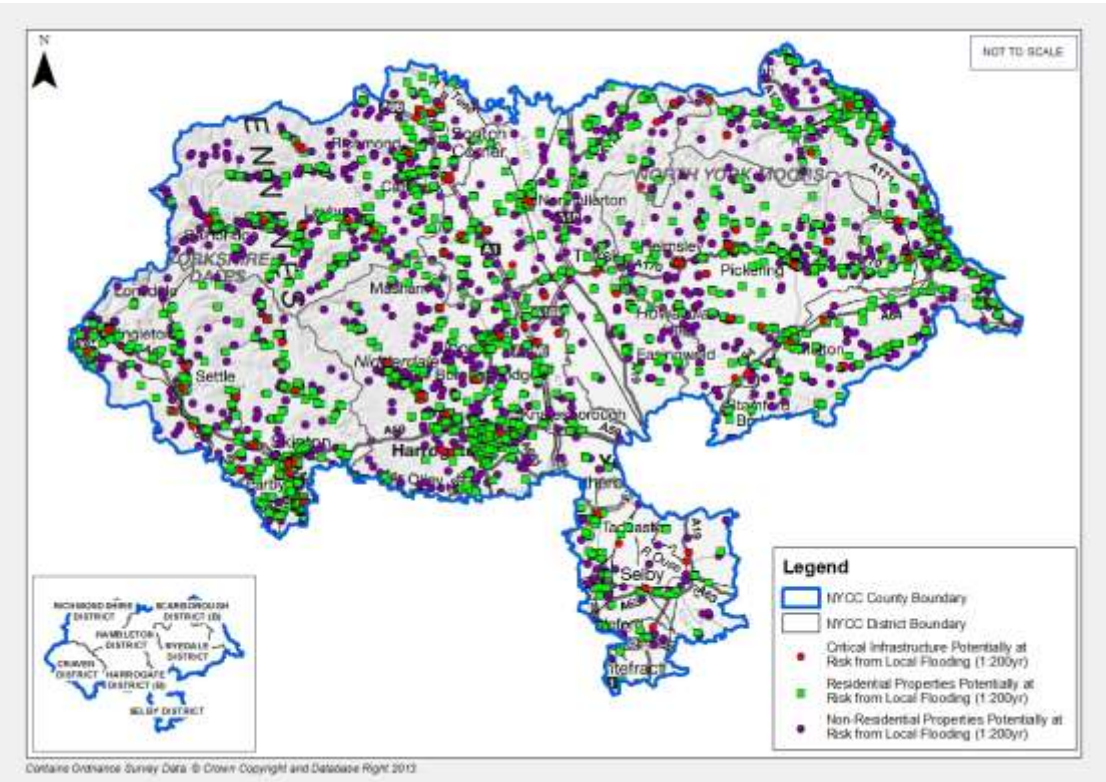
Groundwater flooding is less common in our County than other forms of flooding, but where it does occur the impact upon homes and businesses can be very significant. Groundwater flooding is often very difficult to address, and also tends to last for much longer than other types of flooding.

In North Yorkshire, groundwater flooding has occurred on the southern flank of the North Yorkshire Moors, where water levels in the underlying rock can lead to the activation of springs. Groundwater flooding has also been experienced adjacent to some of the larger rivers in the county.

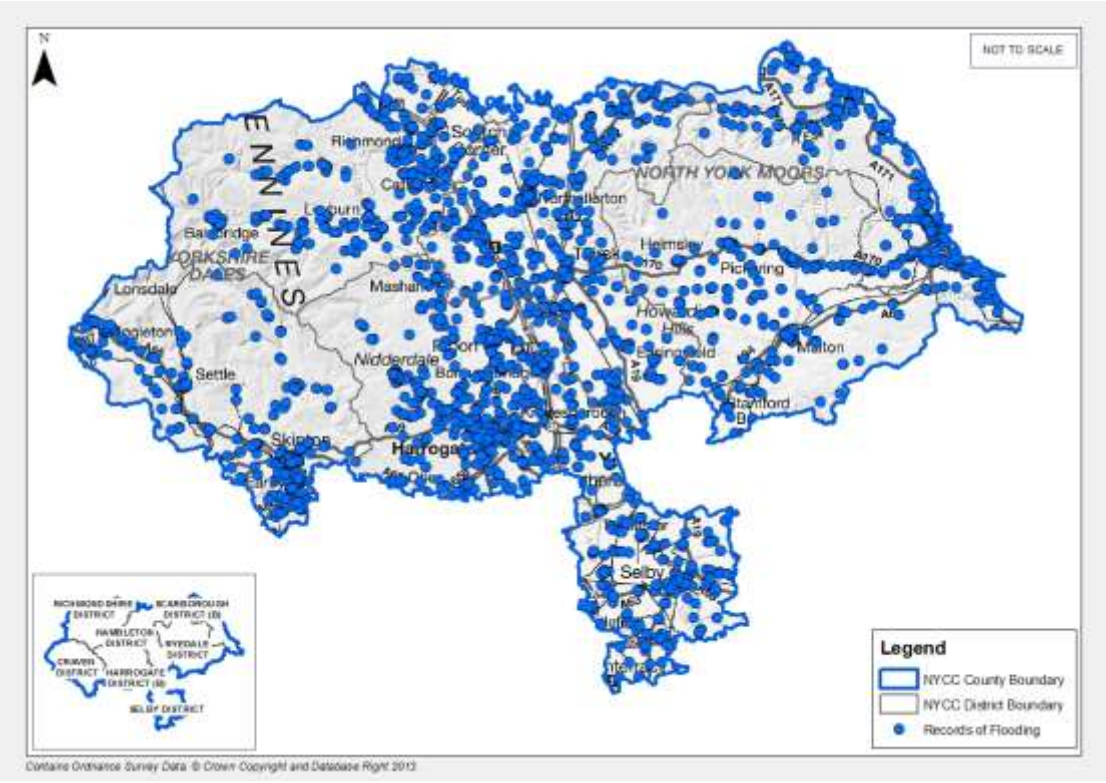
Locations where groundwater flooding occurs are often also at risk from other sources of flooding, and groundwater flooding problems can sometimes be masked by flooding from rivers and surface water.

4.8 Local Flooding

The scale and nature of local flood risk across North Yorkshire is significant and affects almost all parts of the County. We have carried out a series of hydraulic modelling exercises and surveys to help us to understand the risks, and we continue to build on this.



The map above shows the widespread distribution of flood risk across the County



The pattern of recorded flooding closely correlates with the flooding predicted by our modelling

4.9 Main River Flooding in North Yorkshire

North Yorkshire has experienced significant river or fluvial flooding events in its history, including several in years such as those experienced in 1999, 2000, 2004, 2007, 2012, 2015, 2019 and 2020. The Environment Agency manages the flood risk from the county's main rivers. The principle river systems in North Yorkshire are:

The Swale, Ure and Nidd – these rivers pass through the Yorkshire Dales and down through Vale of Mowbray to the Vale of York to become the **River Ouse**.

South of York, the **Ouse** is joined by the **Rivers Wharfe and Aire**, draining from the West, and the **River Derwent** from the East, before broadening into the upper reaches of the Humber Estuary at Goole.

In addition the Environment Agency publish flood risk maps, derived by using hydrological modelling techniques to establish the fluvial flood risk zones

4.10 Sewer Flooding

In England and Wales, the term 'public sewer' is specifically used to refer to the pipes and assets owned and operated by the local water company in their capacity as sewerage undertaker. Public sewers can be intended to carry foul flow, surface water or a combination of both.

However, it is important to note that the public sewer system exists alongside other drainage systems in most locations across North Yorkshire, the ownership of which is often private or can be the responsibility of the highway authority. These networks are often interconnected as a result of many different historical factors, meaning that it is rarely straightforward to establish a complete picture of the roles and responsibilities that each organisation or owner holds.

Local Flood Risk Strategy 2022-2027

Consultation Draft



Section 5: Flooding & Land Drainage Legislation and Guidance

Overview of legislation, guidance & bodies that govern flood risk management and drainage

Contents

5	Flooding and Land Drainage Legislation	3
5.1	Introduction	3
5.2	Flood and Water Management Act (2010)	3
5.2.1	The National Flood and Coastal Erosion Risk Management Strategy for England (FCRM), 2020	3
5.2.2	The 25 year Environment Plan	4
5.2.3	Local flood risk management Strategies	4
5.3	The EU Floods Directive and the Flood Risk Regulations (2009)	5
5.4	National Planning Policy Framework (NPPF) on development and Flood Risk Management.....	6
5.5	North Yorkshire Planning Authorities & Local development plans	6
5.6	North Yorkshire Flood Resilience Forum	6
5.7	Land drainage law and regulation.....	7
5.8	Riparian ownership	7
5.9	Water Framework Directive	8
5.10	Links to North Yorkshires Council and Community Plans.....	9

5 Flooding and Land Drainage Legislation

5.1 Introduction

The scope of Flood Risk Management in England and Wales has been shaped by a series of historic events, and by legislation laid down over many years in response to drainage issues and flood risk.

5.2 Flood and Water Management Act (2010)

The significant flooding that occurred in 2007 led to a review by Sir Michael Pitt which in turn gave rise to the Flood and Water Management Act (2010), which now forms the key piece of legislation overseeing flood risk management in England.

The Flood and Water Management Act 2010 (FWMA) determines that flood risk will be managed by a combination of national strategies for England and Wales and a series of local strategies.

The FWMA gives local authorities significant new roles and responsibilities to help manage flood risk in a more co-ordinated way. It helps reduce flood risk by:

- Defining who is responsible for managing the various sources of flood risk
- Enabling effective partnerships to be formed
- Encouraging more sustainable forms of drainage for new development

5.2.1 The National Flood and Coastal Erosion Risk Management Strategy for England (FCRM), 2020

The FWMA requires the Environment Agency to 'develop, maintain, apply and monitor a strategy for flood and coastal erosion risk management in England'.

Accordingly, the Agency has written the National Flood and Coastal Erosion Risk Management Strategy for England 2020 (the National Strategy)

This National Strategy sets out the principles for how flood risk from all sources should be managed. It provides strategic information about the various kinds of flood risk and the organisations responsible for their management. The Strategy's long term vision is for '*A nation ready for, and resilient to, flooding and coastal change – today, tomorrow and to the year 2100.*'

The Strategy has three long-term ambitions:

- **Climate resilient places:** working with partners to bolster resilience to flooding and coastal change across the nation, both now and in the face of climate change

- **Today's growth and infrastructure resilient in tomorrow's climate:** making the right investment and planning decisions to secure sustainable growth and environmental improvements, as well as infrastructure resilient to flooding and coastal change
- **A nation ready to respond and adapt to flooding and coastal change:** ensuring local people understand their risk to flooding and coastal change, and know their responsibilities and how to take action

The FWMA requires risk management authorities (local authorities, internal drainage boards, sewerage companies and highway authorities) to act consistently with the National Strategy in carrying out their flood and coastal erosion risk management functions. The national strategy is available to view on the Environment Agency's website at: [National Flood and Coastal Erosion Risk Management Strategy for England - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/672222/national_flood_coastal_erosion_risk_management_strategy_for_england.pdf)

The North Yorkshire Local Flood Risk Management Strategy has been developed around these guiding principles to ensure that communities in North Yorkshire benefit from a coordinated and fully aligned approach.

5.2.2 The 25 year Environment Plan

The UK government published the 25 Year Environment Plan in 2019 and set out the vision for a greener future to improve the environment. Flood risk and resilience plays an important role in working towards long term environmental sustainability and resilience for England.

The main parts of the 25 Year Environment Plan which relate to this strategy include:

- Thriving plants and wildlife,
- Reduce the risk of harm from environmental hazards,
- Enhance the natural environment,
- Mitigate & adapt to climate change.

5.2.3 Local flood risk management Strategies

The Act designates NYCC as the Lead Local Flood Authority (LLFA) for its area, with duties and powers to lead the co-ordination of flood risk management at a local level, as well as to carry out a specific role in managing flood risk from local sources – Surface water, groundwater and Ordinary Watercourses.

The FWMA places a duty on all risk management authorities operating in an area to act in accordance with the local flood risk management strategy when carrying out their flood risk management functions – outlined in section 5. These functions are subject to scrutiny in accordance with the LLFA's democratic processes.

The statutory duties of the LLFA set out in the Act are detailed in section 5 but in summary are:

- Develop, maintain, apply and monitor a local flood risk management strategy (this document)
- Maintain a register of drainage and flood assets
- Investigate flooding incidents where appropriate
- Establish an approving body for sustainable drainage systems (SuDS)

Additional powers handed to the LLFA through the FWMA are:

- Designation of flood risk management structures when deemed necessary
- Permissive power to undertake works where deemed necessary
- Powers to consent works on ordinary watercourses

In addition to the specific duties and powers identified in the legislation for Lead Local Flood Authorities, the Act also requires that all the publicly accountable bodies named as a Risk Management Authority should act consistently with this strategy, and that the water companies should also have regard to the strategy in the delivery of their services.

Section 6 of this strategy describes the role that each organisation plays in the management of flood risk, and the partnerships that ensure these duties are delivered in a coordinated way that meets the requirements of this strategy.

5.3 The EU Floods Directive and the Flood Risk Regulations (2009)

The Flood Risk Regulations implement the requirements of the European Floods Directive which aims to provide a consistent approach to managing flood risk across Europe. The approach is based on a 6 year cycle of planning which begins with the publication of:

- Preliminary Flood Risk Assessments (PFRAs) by 22 December 2011
- Hazard and risk maps by 22 December 2013
- Flood risk management plans by 22 December 2015

North Yorkshire County Council's Preliminary Flood Risk Assessment can be found [here](#).

The Hazard and Risk maps published by the Environment Agency can be found [here](#).

The Flood Risk Management Plan (FRMP) for North Yorkshire are currently being drafted following consultation from October 2021 to April 2022 developed and will be published in

Autumn 2022. The County Council is working closely with the EA and other organisations to develop a coherent and consistent set of measures and objectives for managing flood risk from all sources of flooding.

5.4 National Planning Policy Framework (NPPF) on development and Flood Risk Management

The spatial planning and development management process has a critical role to play in managing the risk of flooding by directing development to areas of lowest risk, by managing land use and by ensuring development on a site does not increase the flood risk elsewhere.

The planning process handles the delicate balance between the economic development of an area and potential risks of flooding in the future. Planning authorities and Developers have a key role to play in managing and mitigating flood risk in new developments and should have regard to this strategy. New development should also look for opportunities to make a positive, sustainable contribution to the overall flood risk of an area and realise both environmental and social amenity benefits.

In March 2012 the Government introduced the [National Planning Policy Framework](#) (NPPF) (updated 2021).

The Government requires that the NPPF be taken into account in the preparation of local plans and is a material consideration in planning decisions. As LLFA, NYCC supports an approach by planning authorities in its area that reflects the presumption in favour of sustainable development contained in the NPPF.

5.5 North Yorkshire Planning Authorities & Local development plans

General planning development control and planning policy are the responsibility of the 7 district councils and two National Park Authorities (North York Moors and Yorkshire Dales) and the unitary authority for the City of York.

The county council has responsibility for planning only for waste management and mineral sites across the area and for its own developments such as schools and libraries.

From April 2023, the 7 district councils and the County Council will become one planning authority for all areas relating to planning.

Links to the local plans of each planning authority are available via the county council website by following this link: <http://www.northyorks.gov.uk/article/26340/Local-plans>

5.6 North Yorkshire Flood Resilience Forum

Under the Civil Contingencies Act 2004, the purpose of the North Yorkshire Local Resilience Forum (NYLRF) is to prepare and plan for emergencies to reduce the impact on the people of North Yorkshire when such events occur.

The NYLRF has the responsibility of developing plans for an effective response to a major emergency. This means working closely with emergency services, NYCC, District and Borough Councils, the National Health Service, and other agencies that can help to prepare and respond to any event.

The NYLRF partnership brings together expertise and resources from different organisations during a flood event. Whatever the original source or sources of flooding, this team will provide those communities and individuals affected by flooding with a coordinated multi-agency response that can support the people affected by flooding when it occurs.

The composition of the team comes from a wide range of disciplines, including emergency planning, flood risk management, sewerage, highways, communications teams and the voluntary sector. Other disciplines from within NYCC and other organisations can also be drawn upon in an emergency.

5.7 Land drainage law and regulation

The Land Drainage Acts 1991 and 1994 give NYCC as land drainage authority permissive powers (and Internal Drainage Boards in their districts) to maintain the flow in ordinary watercourses and to ensure they are free from obstruction. An ordinary watercourse is every river, stream, ditch, drain, cut, dyke, sluice, sewer (other than a public sewer) and passage through which water flows and which does not form part of a main river.

The council can require landowners to carry out work to remove any obstruction and maintain the flow. It can also carry out works on ordinary watercourses and undertake drainage work on private land to prevent flooding. The Environment Agency has similar land drainage powers in relation to main rivers under the Water Resources Act and the Flood and Water Management Act

It should be emphasised that, although NYCC and the EA have permissive powers relating to the maintenance of flow in watercourses, these organisations are only legally responsible for the physical maintenance of watercourses where they themselves are the riparian owners.

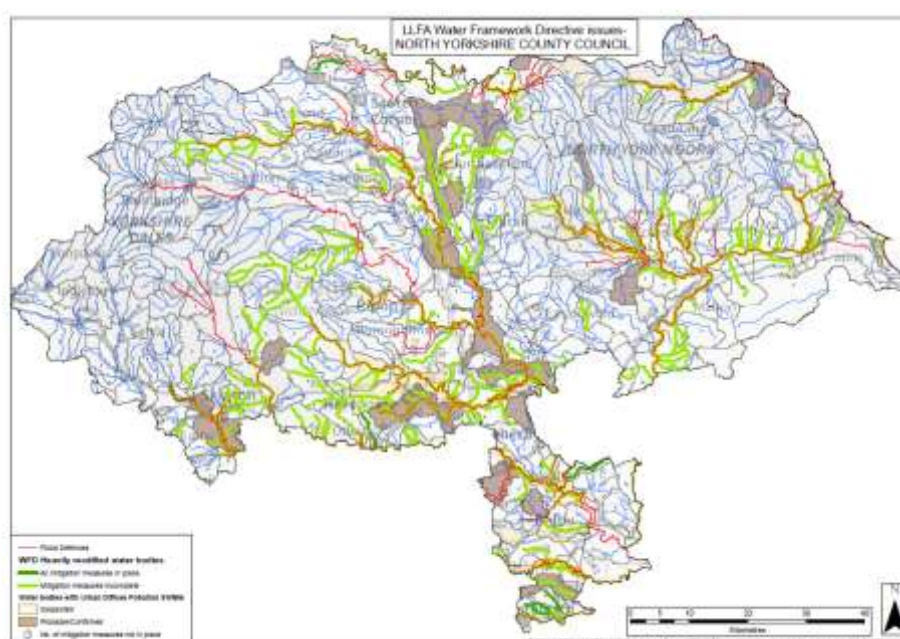
Internal Drainage Boards also have the powers to make (and enforce byelaws) (Section 66, Land Drainage Act 1991) ensure the efficient working of their drainage system in their Internal Drainage District. This includes the need for consent for any construction within 9 metres of a watercourse and any new discharges within an Internal Drainage District.

5.8 Riparian ownership

Persons or organisations owning land or buildings next to or over a watercourse, or with a watercourse running through their land or buildings, are defined as riparian owners in common law. The Environment Agency's has further information [here](#) which gives an overview of riparian owners' rights and responsibilities. In general terms, these responsibilities relate to the upkeep of watercourses and drainage infrastructure – allowing water to flow unhindered and free from pollution.

5.9 Water Framework Directive

The European Floods Directive is a sister directive to the Water Framework Directive (WFD). Both directives use the same unit of management (river basin districts) and are based on the same 6 year cycle of planning. There is a requirement to coordinate delivery of the two directives.



The objectives of WFD include:

- Preventing deterioration in the status of surface water bodies, protecting them and improving their ecological status.
- Achieving at least 'good' status for all waters by 2015, 2021 or 2027 depending on the criteria set out in the Directive.
- Promoting the sustainable use of water as a natural resource, balancing abstraction and recharge
- Conserving aquatic ecosystems, habitats and species
- Progressively reducing or phasing out the release of pollutants which present a significant threat to the aquatic environment
- Progressively reducing the pollution of groundwater and preventing or limiting the entry of pollutants
- Contributing to the mitigation of the impact of floods and drought on surface water bodies.

The Directive sets a target that all surface and ground water bodies are to reach 'good' status by 2015. However, this target is extended to be one of 'good ecological potential' by 2027 for those bodies which have been heavily modified for example to provide water supply, flood protection or navigation. All new activity in the water environment requires assessing to identify any potential impacts which could hinder a water body from meeting its WFD objectives. However there is also opportunity for identifying flood risk management measures which can also deliver water body improvement and contribute to meeting WFD targets. A good example of this might be a scheme to provide upstream storage lagoons that retain both flood water and act as a sediment trap, thus reducing both flooding and pollution.

LLFAs and other RMAs have an important contribution to make in achieving WFD targets and objectives. Through effective coordination and planning of activities such as the consenting of works on ordinary watercourses, the promotion of sustainable drainage and working with communities and individuals to improve water body management, benefits can be realised for both water quality and flood resilience, as reflected in the Objectives for this Strategy

5.10 Links to North Yorkshires Council Plans

The North Yorkshire Council Plan for the period 2021-2025 forms the cornerstone of the council's policy framework . It sets out the authority's vision and priorities for the next four years, and how they will be achieved.

'We want North Yorkshire to be an even better place for everyone to live, work or visit.'

This commitment is underpinned by five ambitions identified in our council plan, and our Local Flood Risk Strategy has been developed so that it reflects this commitment:

- Leading for North Yorkshire
- Every child and young person has the best possible start in life;
- Every adult has a longer, healthier and independent life;
- North Yorkshire is a place with a strong economy and a commitment to sustainable growth, and
- Innovative and forward thinking Council

Local Flood Risk Strategy 2022-2027

Consultation Draft



Section 6: Who does what?

Overview of the flood risk management duties and responsibilities of organisations, businesses and individuals

Contents

6	Who does what? : Flood Risk Management in North Yorkshire	3
6.1	The Yorkshire Regional Flood and Coastal Committee	3
6.2	Partnership working and the functions of risk management authorities	4
6.3	North Yorkshire County Council as Lead Local Flood Authority	7
6.4	North Yorkshire County Council as Highway Authority	8
6.5	The functions of the Environment Agency	9
6.6	Internal Drainage Boards	10
6.7	Responsibilities of riparian owners in North Yorkshire	11
6.8	The function of the Water & Sewerage Companies (WaSC)	12
6.8.1	Water company sewerage and flood risk management functions	12
6.8.2	Water company as reservoir owner and operator	13

6 Who does what? : Flood Risk Management in North Yorkshire

6.1 The Yorkshire Regional Flood and Coastal Committee

The Regional Flood and Coastal Committee (RFCC) is a committee established by the Environment Agency under the Flood and Water Management Act 2010.



The RFCC brings together members appointed by Lead Local Flood Authorities (LLFAs) and independent members with relevant experience for three purposes:

- To ensure there are coherent plans for identifying, communicating and managing flood and coastal erosion risks across catchments and shorelines
- To promote efficient, targeted and risk-based investment in flood and coastal erosion risk management that optimises value for money and benefits for local communities
- To provide a link between the Environment Agency, LLFAs, other risk management authorities, and other relevant bodies to engender mutual understanding of flood and coastal erosion risks in its area.

6.2 Partnership working and the functions of risk management authorities

The Flood and Water Management Act 2010 (FWMA) defines certain organisations as ‘Risk Management Authorities’ with responsibility for management of flood risk.

In addition to the specific responsibilities and functions¹ that each RMA is required to deliver, they also share:

- A duty to act consistently with the Local Flood Risk Strategy when carrying out flood risk management functions
- A duty to work in partnership to manage flood risk in the area and to co-ordinate flood risk management activities
- A duty to share information and data relating to their flood risk management activities
- A duty to be subject to the scrutiny of the LLFA’s democratic processes in respect of their flood risk management activities

In the Yorkshire region, four sub-regional partnerships have been developed to assist with the coordination of these flood risk management activities. The North Yorkshire Flood Risk Partnership comprises representatives from North Yorkshire County Council, City of York Council, the Environment Agency, Yorkshire Water, and representation from the Internal Drainage boards, the districts and the coastal authority in the sub-region.

The creation of the new unitary council for North Yorkshire in April 2023 will bring together the 7 district councils and the County Council. Any changes to the structure and working arrangements of the partnerships will be updated within the strategy.

¹ 3 “flood risk management function” means a function under; Part 1 of the Flood and Water Management Act 2010, Section 159 or 160 (and a flood defence function within the meaning of section 221) of the Water Resources Act 1991, The Land Drainage Act 1991, Sections 100, 101, 110 or 339 of the Highways Act 1980, The Flood Risk Management Functions Order 2010.

FCRM Partnerships Model



The relevant authorities in the North Yorkshire Authority area are identified in the table below

Risk Management Authority	Organisation responsible within North Yorkshire
Lead Local Flood Authority	North Yorkshire County Council
Environment Agency	Environment Agency (Yorkshire - North East)
District / Borough Councils	District Councils: Craven, Hambleton, Ryedale, Richmondshire and Selby Borough Councils: Harrogate and Scarborough (Scarborough are also the coastal authority for their administrative area)
Water companies	Majority of County: Yorkshire Water Small areas near the northern border: Northumbria Water and United Utilities
Highways Authority	Trunk roads: National Highways Non trunk roads: North Yorkshire County Council
Internal Drainage Boards	There are six Internal Drainage Boards (within consortiums) that operate across the County

6.3 North Yorkshire County Council as Lead Local Flood Authority

NYCC recognises that it has an important and challenging role to play as Lead Local Flood Authority in facilitating the delivery of flood risk management in its area by co-ordinating the activities of all relevant agencies.

As well as this general responsibility the Act assigns specific management functions to NYCC relating to 'local flood risk' – defined by the Act as flooding from Surface Water, Ground Water and Ordinary Watercourses. These functions are expressed as 'Duties' – something we are legally obliged to do – and 'Powers' to be used at the authority's discretion.

NYCC's risk management duties are:

- To develop, maintain and apply a Local Flood Risk Management Strategy
- To develop and maintain information on flooding from ordinary watercourses, surface water and groundwater
- To investigate incidents of flooding in its area where appropriate and necessary and to publish reports
- To maintain a register of structures and features which have a significant effect on flood risk
- To establish and operate an approval body for sustainable drainage systems (SuDS) serving new development and redevelopment (expected to become effective in 2014)

NYCC's permissive powers are:

- The power to designate any structure or feature that affects flooding
- To consent to third party works on ordinary watercourses
- The power to carry out works to manage flood risk from surface water and from groundwater

NYCC's permissive powers under the Land Drainage Act are:

- Maintain and improve ordinary watercourses and build new works
- Serve notice on any person or body requiring them to carry out necessary works to maintain flow in ordinary watercourses

Although NYCC has powers to do works in ordinary watercourses, the responsibility for the maintenance lies with the riparian owner. Hence NYCC is only responsible for maintenance where it is the riparian owner.

North Yorkshire County Council is a category 1 responder, the emergency response to flooding is not part of its role as LLFA. The Resilience and Emergencies Team undertake coordination of this function on behalf of NCC. The LLFA will however often undertake investigations into the cause and effects of significant flood events and will endeavour to

predict which are likely to be vulnerable to local flooding from surface runoff, groundwater or from ordinary watercourses. Dissemination of this information will ensure that emergency response teams are better informed about the spatial distribution of flood risk and can prepare emergency response plans accordingly. ²(Please see section 2 Action Plan for further information on the work between the LLFA and the Local Resilience Forum)

6.4 North Yorkshire County Council as Highway Authority

There are approximately 9,000km (5,592 miles) of road, 4,400km (2,734 miles) of footway and over 2,000 bridges in North Yorkshire. North Yorkshire County Council is the local Highway Authority for the County and is responsible for the management of most of these roads (excluding Motorways and Trunk Roads such as the A1(M) and A64(T) which are managed by the National Highways).

The Highways Act (1980) places a responsibility on the council to drain the highway of surface water and to maintain the highway drainage systems. To meet this responsibility, the highway Authority may undertake works on the highway or on land adjoining it for the purpose of draining the highway or to prevent surface water flowing onto it and causing flooding.

Surface water from the highway drains either into the public sewer network (maintained by the Water Company), into separate highway drains (maintained by the highway authority) or into roadside ditches (maintained by the landowner). Much of this drainage is via drainage gullies which are cleaned out every six months, or annually, depending on need. This need is established through a risk based approach. Cleansing is carried out in order to ensure the free flow of water from the highway. More regular gully emptying takes place at sites across the county where poor drainage has been identified. This increased frequency of emptying reduces the risk of flooding and helps to reduce damage to the network whilst also maintaining access for transport users.

² The Civil Contingencies Act (CCA) 2004 sets out which authorities are emergency responders. North Yorkshire County Council is a category 1 Responder (these are organisations at the core of the response to most emergencies i.e. the emergency services, local authorities and NHS bodies). The Resilience and emergencies Team (NYCC) coordinates this function on behalf of NYCC. The Team works with multi-agency partners i.e. Category 1 responders, Category 2 Responders (Health and Safety Executive, transport and utility companies who will be heavily affected by incidents that affect their sector), the military, the Voluntary sector, and the Environment Agency, through the North Yorkshire Resilience Forum (NRF) to prepare for, respond to and recover from, major emergencies. This includes embedding lessons identified.



6.5 The functions of the Environment Agency

Under the FWMA the Environment Agency (EA) has a strategic overview role for all sources of flooding as well as an operational role in managing flood risk from Main Rivers, reservoirs and the sea. As part of this role the EA have developed a National Flood and Coastal Erosion Risk Management Strategy for England – ‘Understanding the Risks, Empowering Communities, Building Resilience.’

This national strategy outlines the EA’s strategic functions as:

- Ensuring that flood risk management plans (FRMPs) are in place and are monitored to assess progress. The plans will set out high-level current and future risk management measures across the catchment
- Publishing and regularly updating its programme for implementing new risk management schemes and maintaining existing assets
- Supporting risk management authorities’ understanding of local flood risk by commissioning studies and sharing information and data
- Supporting the development of local plans and ensuring their consistency with strategic plans
- Managing and supporting Regional Flood and Coastal Committees and allocating funding

The EA’s operational functions are/include:

- Risk-based management of flooding from main rivers including permissive powers to do works including building flood defences
- Regulation of works in main rivers through the consenting process
- Regulation of reservoirs with a capacity exceeding 10,000m³
- Working with the Met Office to provide severe weather warnings – available to Risk Management Authorities
- Duties as a Category 1 Responder for Emergency Planning (including issuing flood warnings).
- The maintenance and operational management of main river assets including flood defences
- Statutory consultee to the development planning process

- The power to serve notice on any person or body requiring them to carry out necessary works to maintain the flow in main rivers



6.6 Internal Drainage Boards

Internal Drainage Boards (IDBs) are local operating authorities established in areas of special drainage need in England and Wales.

IDBs have permissive powers to undertake works to secure clean water drainage and water level management in designated drainage districts. In managing water levels IDBs have an important role in reducing flood risk in areas beyond their administrative boundary. They also have byelaws (Land Drainage Act 1991, S66) to ensure the efficient working of a drainage system in their district or area.

IDBs are funded by special levies from local authorities, capital grants awarded by the Environment Agency and general drainage rates paid by landowners.

There are nine Internal Drainage Boards (IDBs) whose geographical area of responsibility falls either partly or wholly in the administrative area of North Yorkshire County Council. The majority of the IDBs (apart from the Swale and Ure Internal Drainage Board) are part of a consortium or management board. The IDBs are:

York Consortium Drainage Boards

- Ainsty Internal Drainage Board
- Airdale Internal Drainage Board
- Foss Internal Drainage Board
- Ouse and Derwent Internal Drainage Board

Shire Group of Internal Drainage Boards

- Kyle & Upper Ouse Internal Drainage Board
- Selby Area Internal Drainage Board

Yorkshire and Humber Drainage Boards

- Danvm Internal Drainage Board
- Vale of Pickering Drainage Board

Swale and Ure Internal Drainage Board

6.7 Responsibilities of riparian owners in North Yorkshire

Landowners whose land is adjacent to a watercourse are known as 'riparian owners'.

A landowner can be an individual e.g. home owner or farmer, private business or an organisation e.g. the district council as park owner, on school grounds the county council as property owner.

A watercourse is defined as every river, stream, ditch, drain, cut, dyke, sluice, sewer (other than a public sewer) and feature through which water flows, but which does not form part of a Main River.

Riparian owners have legal duties, rights and responsibilities under common law and the Land Drainage Act 1991 for watercourses passing through or adjoining their land. These responsibilities are to:

- Pass on the flow of water without obstruction, pollution or diversion affecting the rights of others
- Accept flood flows through their land, even if these are caused by inadequate capacity downstream.
- Maintain the banks and bed of the watercourse and keep structures maintained
- Keep the bed and banks free from any artificial obstructions that may affect the flow of water including clearing litter, heavy siltation or excessive vegetation.

Guidance on the rights and responsibilities of riparian ownership are outlined by the Environment Agency and can be found [here](#).

Although risk management authorities do have permissive powers to carry out works to reduce flood risk related to Main Rivers and Ordinary Watercourses these will only be used as a last resort and do not replace the responsibilities of the riparian owner under common law and the Land Drainage Act 1991.

Where surface water runs off land or is managed via land drainage systems, this naturally contributes to flows in our drainage networks and watercourses. For much of the County, this runoff is managed by private landowners and farmers. As such, the effect of land

management on local flood risk issues is often well understood by the communities and the people who live and work in them.

Where uncertainty exists in terms of responsibilities, or when disputes arise between adjacent landowners or authorities, a judgement from the [Agricultural Land and Drainage Tribunal](#) may be requested.

Given the size of the County, effective land management and stewardship by landowners therefore needs to play an important part in managing flood risk. Individual landowners can help reduce flood risk on a localised scale, but their collective effort can also assist RMAs by reducing the cumulative impacts, because runoff from several localised catchments may combine as the watercourses make their journey to the larger rivers and the sea.

We recognise the importance of sustainable and effective land management, and will work with communities and businesses to achieve this.

6.8 The function of the Water & Sewerage Companies (WaSC)

The water companies of England and Wales are both water supply service providers and sewerage undertakers. The water and sewerage industry is regulated by Ofwat, through the Water Industry Acts 1991 and 1999 and the Water Act 2003, to ensure that consumers' interests are protected. The water companies' flood risk management responsibilities relate to their operations as sewerage undertakers, reservoir owners and provider of infrastructure to new developments.

There are three Water and Sewerage Companies that operate within the administrative area of North Yorkshire County Council. They are:-

- [Yorkshire Water Services Limited](#)
- [Northumbrian Water Services Limited](#)
- [United Utilities Limited](#)

6.8.1 Water company sewerage and flood risk management functions

Particularly in urban areas, some rainwater falling on buildings, impermeable surfaces and roads drains into public sewers owned by one of the water companies. In the NYCC administrative area these are Yorkshire Water, Northumbrian Water and United Utilities.

This water can then be conveyed:-

- Through the combined sewer network, where it mixes with foul water (including sewage) and passes on to sewage treatment works

Or

- Through surface water only sewers, to be discharged directly to rivers and streams

The water companies are risk management authorities and are responsible for the management of the risk of flooding from both combined and surface water public sewers due to excess rainfall entering them.

Responsibility for private sewers lies with the landowners (see section 5.11), but in 2011 the ownership of many private sewers was transferred to water companies. Further guidance can be found [here](#).

Duties as a Category 2 Responder for Emergency Planning

6.8.2 Water company as reservoir owner and operator

The water companies maintain the 27 reservoirs in North Yorkshire in accordance with the Reservoirs Act 1975 and the Flood and Water Management Act 2010. Independent engineers appointed under these Acts use industry guidance to ensure the integrity of the reservoir when subject to flooding.

6.9 District and Borough Councils

There are seven borough and district councils in North Yorkshire, and the County Council works closely with each to manage flood risk.

- Richmondshire District Council
- Hambleton District Council
- Scarborough Borough Council
- Ryedale District Council
- Craven District Council
- Harrogate Borough Council
- Selby District Council

The information set out below highlights the range of mechanisms available to District and Borough Councils in the exercise of their flood risk management functions. After April 2023 the districts, borough and county council will become one authority.

6.9.1 Responsibilities under the Flood and Water Management Act 2010

Section 6 District Councils are classed as Risk Management Authorities.

Section 11 In exercising its flood and coastal erosion risk management functions and any function that might affect a coastal erosion or flood risk, a district council must act in a manner which is consistent with the national strategy and

associated guidance, and also act in a manner which is consistent with local strategies and associated guidance.

- Section 13 A District Council must co-operate with other Risk Management Authorities in the exercise of their flood and coastal erosion risk management functions.
- Section 27 In exercising a flood or coastal erosion risk management function, district councils must aim to make a contribution towards the achievement of sustainable development.
- Section 39 A district council may carry out work (as specified by Section 3 (3) (a) to (e) of the Act) that will or may cause flooding, increase water below the ground or coastal erosion.
- Schedule 1 District Councils are allowed to designate a structure, or a natural or manmade feature of the environment where the authority thinks that the existence or location of the structure or feature affects flood risk. The effect of designation is that a person may not alter, remove or replace a designated structure or feature without the consent of the responsible authority.

6.9.2 Responsibilities under the Land Drainage Act 1991

- Section 14A A District Council may carry out flood risk management work, where the authority considers the work desirable having regard to the local flood risk management strategy for its area, and that the purpose of the work is to manage a flood risk in the authority's area from an ordinary watercourse.
- Section 66 A District Council may make byelaws to secure the efficient working of a drainage system in the authority's district or area, to regulate the effects on the environment, to secure the effectiveness of flood risk management work within the meaning of section 14A and/or to secure the effectiveness of works done in reliance on

6.9.3 Responsibilities under the Public Health Act 1936

- Section 260 A district council may undertake works to manage statutory nuisances in connection with watercourses, ditches, ponds, etc as outlined by Section 259 of the Public Health Act 1936. This includes the clearance of any obstruction or impediment to the proper flow of water. Other provisions within the Public Health Act 1936 outline further provisions related to watercourses, culverting and land drainage.

4.20. Responsibilities under the Environmental Protection Act 1990

Section 79 (Statutory nuisances and inspections therefore) outlines that the following would constitute a statutory nuisance; that any water covering land or land covered with water which is in such a state as to be prejudicial to health or a nuisance.

6.9.4 Responsibilities under the Localism Act 2011

Section 9FH & 9JB A district council (as a risk management authority) must comply with a request made by a lead local flood authorities overview and scrutiny committee, in the course of its arrangements to review and scrutinise the exercise by risk management authorities of flood risk management functions which may affect the local authority's area. District councils must have regard to reports and recommendations of an overview and scrutiny committee in the course of arrangement outlined above.

6.9.5 Planning Legislation

Borough and District Councils operate their development planning and control functions, having due regard to the National Planning Policy Framework and associated technical guidance. These duties also apply to the National Park Authorities.

6.9.6 Civil Contingencies Act 2004

Duties as a Category 1 Responder for Emergency Planning.

Local Flood Risk Strategy 2022-2027

Consultation Draft



Section 7: Financing the Strategy

Overview of the funding options for flood risk reduction and management

Contents

7	Financing the strategy	3
7.1	Introduction	3
7.2	Flood and Coastal Resilience Partnership Funding	3
7.3	Yorkshire Regional Flood and Coastal Committee levy funds	4
7.4	North Yorkshire County Council funding	4
7.5	Environment Agency revenue funding	4
7.6	Private and business funding	5
7.7	Water Company Investment	5
7.8	Internal Drainage Boards	5

7 Financing the strategy

The UK Government has committed £5.2 billion from 2021-2027 to create 2000 new flood and coastal defences and better protect 336,000 properties. This includes 25 areas of risk receiving a combined total of £200 million for innovative resilience projects. One such project involves a joint initiative between North Yorkshire County Council and the City of York Council targeting landowners with financial incentives to flood land upstream of affected communities.

7.1 Introduction

The avoidance of the significant costs associated with flooding, particularly when flood water enters homes and businesses, makes a compelling case for investment in defences and other measures that can help to reduce the risk.

But despite this compelling case, raising the necessary finances to fund improvements is one of the greatest challenges we face.

This section of the strategy sets out some of the principle sources of funding that can be used to fund flood risk reduction measures, and describes how the County Council ensures that the limited financial resources available are prioritised.

Each funding stream has a different, and in some cases only a specific part to play, but we are committed to unlocking the most flexible possible approach to funding flood risk reduction in North Yorkshire.

7.2 Flood and Coastal Resilience Partnership Funding

Formerly known as 'Flood Defence Grant in Aid' (FDGiA), Partnership Funding is the name given to funding that can be made available from central government (The Department of Environment Food and Rural Affairs) for flood risk initiatives that meet their criteria. These criteria relate to the number of properties and businesses that will be protected, as well as factors that recognise any environmental benefits associated with the proposals and can be bid for by any RMA to manage all forms of flooding

As the name suggests, in addition to the government funding element, there is a requirement for projects promoted via this mechanism to seek and secure funding from other sources wherever possible (see sections below). North Yorkshire County Council as Lead Local Flood Authority (LLFA) and other Risk Management Authorities must apply to the Environment Agency through a [partnership funding](#) approach. LLFAs can apply for funding to cover or contribute towards the cost of capital schemes for surface water, ordinary watercourses and groundwater flood risk management.

Some projects can be fully funded by the government grant, but in many cases we will need to secure other local sources of funding in order that projects can proceed.

7.3 Yorkshire Regional Flood and Coastal Committee levy funds

Each year, local authorities in the Yorkshire region pay into a fund that can be used to support or deliver flood risk projects. The fund is managed and allocated by the Regional Flood and Coastal Committee (RFCC), who have identified criteria for eligible projects or initiatives. Levy funding can be used as a partnership funding contribution, as a means of funding investigations and other projects that do not attract central grant funding, or to fund regional initiatives that benefit all the authorities in the region. North Yorkshire County Council funding

Lead Local Flood Authorities currently receive a small amount of grant funding each year from DEFRA to support the delivery of our statutory duties, and to a limited extent for supporting the delivery of some specific flood risk reduction measures and projects. Allocation of this funding is carried out in accordance with a prioritisation methodology which takes into account the following characteristics:

- The nature and scale of impact of the flooding
- How closely the proposals fit with our duties and responsibilities
- The availability of, and opportunities for, contributions from other sources
- How clear the proposals are, and how confident we can be about delivering the outcomes
- How fairly our resources will be distributed between communities at risk from flooding

Typically, the prioritisation of North Yorkshire County Council contributions to flooding schemes will be carried out as part of broader National and Regional funding prioritisation process. This helps to ensure that local contributions are allocated in the manner that maximises the total value of flood risk investment in the County and protects the greatest possible number of homes and other assets.

In exceptional circumstances, consideration may also be given to opportunities that occur outside the normal investment cycle, though this will typically be limited to occasions when significant contributions from other sources are contingent upon financial support from the County Council.

7.4 Environment Agency revenue funding

The Yorkshire RFCC receives a revenue grant from DEFRA to finance the revenue-based activities and staff costs of the EA'S Yorkshire region. The grant funds:

- maintenance programmes for the EA's regional assets and watercourse repairs
- revenue projects to cover legal requirements, investigations and studies in line with national guidelines
- the remaining revenue allocation covers EA's regional staff costs

7.5 Private and business funding

Funding from private sources and from businesses is becoming increasingly important to the successful delivery of flood risk reduction proposals. The government wish to see a greater contribution to projects from those that will benefit from the protection, and in many cases the grant available to pursue projects will not be sufficient in the future unless it is supplemented by funding from others sources.

7.6 Water Company Investment

The water companies have their own investment strategies, which are agreed with, and then monitored by, the water industry regulator OFWAT. Funding from water companies work on a 5-year investment cycle called asset management periods (AMP). The current cycle is AMP7 and runs from 2020 until 2025. A key part of AMP7 is to reduce the risk of sewer flooding.

Where the outcomes of their regulatory targets can be aligned with wider flood risk reduction initiatives, we are committed to working with the water companies to ensure that the best possible value is secured for our residents, both as tax payers and through their water bills.

7.7 Internal Drainage Boards

Internal Drainage Boards derive their income for drainage and flood risk work from agricultural landowners, special levies annually from District Authorities and development contributions and commuted sums.

Where our investment programmes align with the works carried out by the IDBs we are committed to working to reduce risk to properties, people and infrastructure.