

North Somerset Council

Report to the Transport, Climate and Communities Policy and Scrutiny Panel

Date of Meeting: 7 March 2024

Subject of Report: Flood Risk in North Somerset

Town or Parish:

Officer/Member Presenting: Simon Bunn

Key Decision: No

Reason:

The decision will not result in NSC incurring expenditure of £500,000 or more.

Recommendations

To scrutinise the progress of delivering actions against the adopted Local Flood Risk Management Strategy (including maintenance of assets) and the interaction and recent correspondence between North Somerset Council and the Environment Agency.

1. Summary of Report

This report explains the progress in delivering the action plan associated with the Local Flood Risk Management Strategy (LFRMS). It includes an explanation of the recent correspondence between North Somerset Council and the Environment Agency following the motion at Full Council meeting on 14 November 2023 regarding routine maintenance and future upgrades to the coastal flood defences.

The Flood Risk Team is delivering the actions of the LFRMS, and this report summarises key areas of the ongoing work.

2. Policy

- 2.1 North Somerset Council is a Lead Local Flood Authority under the Flood and Water Management Act 2010, and this function, amongst others, is delivered by the Flood Risk Team. Details of the role of the Flood Risk Team can be found in Appendix A.
- 2.2 A Local Flood Risk Management Strategy (LFRMS) is a statutory requirement under the Flood and Water Management Act 2010. The strategy was adopted in June 2023 after approval at the 21 June 2023 Executive meeting following a public consultation period. The strategy has an action plan, which is included in Appendix B.

3. Details

3.1 The top-tier actions included with the North Somerset Local Flood Risk Management Strategy are:

- Action A1 – Appropriately maintaining assets.
- Action A2 – Inputting on planning.
- Action A3 - Regulating surface water activities.
- Action A4 – Making North Somerset Flood Resilient.
- Action A5 – Investigating surface water flooding and assets.
- Action A6 – Using natural flood management.
- Action A7 – Scheme opportunities assessment.

3.2 Action A1 Maintenance of assets

Maintenance responsibilities and activity

Asset maintenance is the responsibility of the asset's owner and/or operator (if that asset is a constructed asset). Natural assets, such as rivers, rhynes and ditches, are again the responsibility of the landowner (or riparian owner) to maintain. However, statutory bodies such as the Environment Agency, the Internal Drainage Board and North Somerset Council can use their powers under various Acts of Parliament to maintain that asset instead of the landowner. This is known as exercising permissive powers. Each authority does this based on the available budget and the flood risk of the asset. Each authority maintains:

- Environment Agency (EA) – main rivers (those rivers and watercourses considered to be the highest risk) ([Link to EA Main River Maps](#))
- Internal Drainage Board (IDB) – viewed rhynes (rhynes considered to be of strategic importance in the IDB) ([Link to IDB Viewed Rhynes Map](#))
- North Somerset Council (NSC) – has the power to maintain ordinary watercourses (all the other watercourses and ditches in North Somerset) but only undertakes riparian maintenance when needed. There is currently no proactive programme of maintenance.

Funding for maintenance

Funding for maintenance comes from different sources depending on the organisation:

- EA funding comes from Government. A bid for funding is made, and there is a funding settlement where the Government indicates the amount awarded. The indicative allocation for Wessex is £8,495,000 against a bid of £17,700,000. This is 48% of what was bid for.
- IDB funding comes from those living within the IDB District via a special levy on North Somerset Council and rates paid by agricultural landowners in the District. The total IDB operational budget for North Somerset Levels IDB in 23/24 was £547,094, of which £140,000 is spent on the annual watercourse maintenance contract, £25,000 is spent on repairs and remedial works, and £193,000 is spent on other works. Running costs for the IDB are £190k.
- NSC spends around £500,000 per annum on highway drainage maintenance, including gully emptying and jetting, and a further £800,000 on highway drainage capital schemes.

- NSC does not have a revenue maintenance budget for works on watercourses or sea defences and does not receive maintenance funding from Government as the EA does. However, NSC has been using capital funding for the following projects:
 - Victorian sea wall enhancement - £400,000 on:
 - Weston-super-Mare Phase 1 – rebuild of storm Eunice damaged buttress at Anchor Head.
 - Weston-super-Mare Phase 2 – crack stitching and stone and mortar replacement.
 - Clevedon Phase 1 (The Beach) – slipway/wall toe rebuild following storm damage.
 - Clevedon Phase 2 (Marine Lake) – wall rebuild, void filling and stone replacement.
 - Clevedon Phase 3 (Marine Lake outer wall) – to be started in April, void filling and wall protection replacement.
 - Further Weston and Clevedon phases will be based on further survey work planned.

Photos of the Victorian sea wall works are in Appendix C.

The Haywood Reservoir (superpond) falls under the Reservoir Act 1975, and works are ongoing to meet the requirements of the Act and to satisfy statutory directions and recommendations of the government-appointed engineer overseeing the reservoir's management. So far, an existing embankment has been reprofiled and re-seeded, and parking restrictions using yellow lines have been introduced on the adjoining road to reduce the impact of car parking on the spillway. Further works are required, and a consultant has been employed to undertake the design.

Following the motion at the Full Council meeting on 14 November 2023, a letter was written to the Environment Agency expressing concern regarding routine maintenance across North Somerset. The response provided reassurance that maintenance works are continuing. Further clarity will be sought on some elements of the response. The letter also provided a reminder of the need to upgrade the flood defences along the North Somerset Coast in the future and the vital role that NSC will need to take in leading the work and obtaining the funding where NSC owns the assets.

3.3 Action A2 – Inputting on planning

The emerging Local Plan emphasises the strategic priority of safeguarding areas at risk of flooding. Policy SP3: Spatial Strategy aims to minimise residential development in such areas outside towns while considering all forms of flooding and their evolution over time. This aligns with the national priority of adopting a sequential approach to development, prioritising lower-risk areas. Despite this, the plan allows for significant residential development within towns, even on lands prone to flooding, like tidal areas in Wyndham Way, Portishead, and mixed-use regeneration sites in Weston-super-Mare town centre, highlighting the sustainability benefits of urban development near amenities and the reuse of brownfield sites. Small-scale residential projects in main towns may use high-risk lands to meet housing needs, provided they ensure long-term safety and do not exacerbate flood risks. Commercial developments, categorised as less vulnerable to flood risks, are also proposed in higher-risk areas but must address and mitigate flood risks. Supporting these initiatives, the Local Plan includes an Infrastructure Delivery Plan (IDP) outlining necessary flood risk management and resilience infrastructure to support these development proposals. This pragmatic approach has been adopted to

balance the extensive flood risk, green belt and housing need across North Somerset.

The flood risk team provides the technical support and evidence to support the approach taken by planning policy colleagues. It is currently working on an update to the Level 1 and Level 2 Strategic Flood Risk Assessments, including refined climate change tidal modelling.

The EA are a statutory consultee on planning applications and will comment on applications at risk of flooding from rivers and the sea.

NSC's flood risk team are a statutory consultee for planning applications with surface water drainage. In 2023, the team commented on 168 planning applications and 56 discharge of conditions. This also includes many pre-application advice meetings with developers, on-site meetings with developers to resolve issues, and technical support to planning colleagues when preparing the local plan. Comments that are made promote the use of sustainable drainage systems within new developments.

The IDB also provide comments on planning applications when it may impact their District. They are not a statutory consultee.

3.4 Action A3 – Regulating surface water activities.

The EA, NSC and the IDB all consent works on watercourses and discuss issues that may impact the other authority.

Obtaining land drainage consent under the Land Drainage Act 1991 is vital for managing flood risks, complying with legal requirements, protecting communities and properties, supporting sustainable development, facilitating effective water management planning, and safeguarding public health.

3.5 Action A4 – Making North Somerset Flood Resilient.

The Environment Agency's National Flood and Coastal Erosion Risk Management Strategy for England defines resilience as "the capacity of people and places to plan for, better protect, respond to, and recover from flooding and coastal change.". This includes making the best land use and development choices, protecting people and places where possible, and responding to and recovering from flooding and coastal change whilst all the time adapting to climate change.

Understanding your flood risk is the first step in becoming flood resilience. Defra has chosen Weston-super-Mare (and one other location) to be the focus of a flood awareness campaign. The campaign is a pilot to understand whether a hyperlocal approach is more effective than a national one. The campaign at Weston used a combination of methods, including in-person events, advertising, and social media posts. Pre and post-campaign surveys have been undertaken to see if the campaign has been effective; when writing this report, the results are unavailable. The material used for the campaign will be used for future North Somerset wide specific campaigns.

The EA also has a specific Flood Resilience Engagement Advisor and would lead in supporting flood action groups where residents need and desire to form one.

Part E of the LFRMS provides locally specific information that would help residents to help themselves become more flood resilient.

The Flood Risk Team also has a workstream to provide residents with property-level flood resilience measures, such as flood doors and automatically closing air bricks. So far, 14 properties have been surveyed, and progress is being made towards appointing a contractor to install the products. Subject to funding being available, installation will happen later this year.

3.6 Action A5 – Investigating surface water flooding and assets.

North Somerset Council records flooding incidents that affect property. Since 2012, over 1500 properties have been impacted by flooding. Over 20 properties are thought to have been flooded internally within the last year. There are many active investigations into the source of flooding to determine if any risk management authority is not undertaking its duties (and thereby causing the flooding) and then to understand what mitigation may be possible. The current investigations that involve the most properties are:

- Portishead, Lipgate Place
- Churchill/Lower Langford
- Abbots Leigh
- Locking
- Flax Bourton

Community-wide investigations are time-consuming and expensive. Topographical surveys, CCTV surveys of culverts and pipework (when known) and hydraulic modelling are required. Funding and resources are not always available to fund the necessary work. Flood investigations are a duty of the LLFA under the Flood and Water Management Act and, therefore, are not eligible for external funding.

Other recent investigations into single property issues include:

- Nailsea (2 locations)
- Uphill
- Loxton
- Clevedon
- Portbury

Flood investigations are very resource intensive, and understandably, residents demand that action be taken as soon as possible. However, available resources limit the extent and speed of the investigation, which is always required before a solution can be found. None of the above relates to highway flooding, which is led by highway operations.

3.7 Action A6 – Using natural flood management.

Natural flood management (NFM) uses natural features in the landscape to store and slow the flow of water. This can be measures such as dams within streams or the construction of ponds and tree planting in the right location. The works are most beneficial in the upper catchment to provide downstream benefits. NSC has undertaken two feasibility reports, one at Burrington Coombe and the other at Goblin Coombe. In each location, a range of NFM measures have been identified and are

now being implemented by the landowner (Avon Wildlife Trust) at Goblin Coombe and the Mendip Hill National Landscape at Burrington Coombe. Further measures are planned in each location; however, gaining support from the landowner and associated regulatory bodies is challenging and time consuming. Further reports will follow as the projects progress.

3.8 Action A7 – Scheme opportunities assessment.

The Scheme Opportunity Assessment is intended to be a high-level surface water flood risk assessment of 25 of the highest risk communities across North Somerset (excluding areas where extensive modelling is required, such as Weston-super-Mare) and then to identify potential options for mitigation, cost them and assess the cost-benefit ratio for each mitigation option. The funding needed to deliver each scheme will be calculated using the partnership funding calculator, with potential funding options identified. Works will only proceed where capital funding is available, including significant grant contributions from Government, in a scheme administered by the Environment Agency. It is unlikely that any schemes will be eligible for 100% grant funding from this scheme, and therefore, funding will be required from other sources for any schemes to proceed.

Opportunities for all potential schemes, nature-based solutions or property level resilience will be compared and the best option for any mitigation will be taken forward.

Benefits & Outcomes

The study will enable the prioritisation of managing surface water flood risk across North Somerset. Where schemes are financially viable, they will be progressed with a greater level of analysis, modelling, and design. Areas where schemes are not viable will be progressed, where funding is available with a combination of natural flood management and property-level flood resilience. Current funding and resources mean that only one scheme can be delivered every two years. Other benefits of the scheme are:

- Assessing the numbers of properties at risk in each location both now and with climate change.
- Adding to an evidence base for future strategies and works.
- Identifying areas that should be safeguarded for potential future schemes during location plan creation.
- Identifying a list of projects that could be developed if opportunities through development became apparent.
- Identifying projects that could synergise with other non-flood risk-related schemes, such as those being delivered through biodiversity net gain and North Somerset nature parks.
- Having the evidence base allows us to add schemes to the EA pipeline or bid for funding as and when opportunities arise.

A consultant has been appointed, and the work will be commencing soon. Areas that have experienced recent flooding are also included within this list.

4. Consultation

The Local Flood Risk Management Strategy has been subject to extensive consultation both externally and publicly. All the individual workstreams involve some form of consultation with those immediately affected and the wider community.

5. Financial Implications

Costs and funding

The revenue budget to support the work of the flood risk team and delivery of the action plan associated with the LFRMS is £50,000. This is supplemented where possible by obtaining external funding for specific pieces of work. For example, £60,000 has been obtained from the Environment Agency's Local Levy fund with conditional £20,000 match funding from NSC for the scheme opportunities assessment described above.

The Victorian walls improvement project is capital funded by NSC, and the possibility of obtaining central government funding for part of the works is being explored with the Environment Agency.

6. Legal Powers and Implications

Appendix A provides a list of legal powers that NSC has to be able to undertake the programme of work.

7. Climate Change and Environmental Implications

The works are part of North Somerset Council's (NSC) climate change mitigation and the adopted Local Flood Risk Management Strategy, a statutory requirement under the Flood and Water Management Act 2010. As the planet warms, we are experiencing more frequent and intense rainfall events, leading to increased flood risks in urban and rural areas. This exacerbates the challenges of managing surface water, groundwater, and fluvial flooding, necessitating robust and forward-looking flood risk management strategies.

Furthermore, addressing the climate change implications of flooding aligns with broader sustainability and environmental protection goals. It encourages the use of green infrastructure, which helps manage flood water and contributes to carbon sequestration, biodiversity enhancement, and the provision of recreational spaces for communities. All the schemes contribute to increasing biodiversity, improving public access, and reducing flood risk in North Somerset.

By recognising the interconnections between climate change and flooding, NSC's approach to flood risk management becomes more holistic, resilient, and sustainable. This proactive stance is essential for protecting communities, infrastructure, and ecosystems from the adverse effects of flooding in a changing climate, ensuring that measures are in place to adapt to future conditions while minimising environmental impact.

8. Risk Management

The Local Flood Risk Management Strategy provides the framework for managing local flood risk in North Somerset. Local flood risk means flood risk from surface water and groundwater. The Environment Agency takes the lead in managing the risk of flooding from rivers and the sea. Cllr Waite is on the Wessex Regional Flood

and Coastal Committee, and RFCC members influence the decisions made about flooding and coastal erosion risk management in their local community.

Site-specific risk assessments will cover all physical works, reflecting standard proportionate project risk management practices designed to identify, assess, and mitigate potential risks throughout the project lifecycle. These practices include implementing a robust risk management approach that encompasses a range of strategies tailored to the project's specific needs and complexities.

Key components of this approach include:

Task Specific Risk Assessments: Conduct ongoing risk assessments at various stages of the project to identify new risks as the project evolves and to reassess the level of existing risks. This ensures that all potential hazards related to site conditions, environmental factors, and logistical challenges are identified and managed proactively. The supplier provides these.

Risk Mitigation Strategies: Developing and implementing targeted strategies to mitigate identified risks, such as scheduling works during periods of low environmental impact when there are low levels of vegetation, employing experienced contractors, and ensuring that all necessary safety measures are in place. These strategies are designed to minimise the likelihood of incidents that could lead to cost overruns, delays, or safety concerns.

Contingency Planning: Establishing contingency plans for critical risks that could impact the project timeline or budget. This includes setting aside a contingency budget to cover unexpected costs and developing action plans to address potential scenarios that could disrupt the project. There is a sufficient contingency budget for modest cost overruns.

Stakeholder Engagement: Engaging with stakeholders, including local communities, regulatory bodies, and project partners, to ensure all potential risks are considered and addressed. This collaborative approach helps identify potential opposition or concerns early in the process, allowing for the development of acceptable mitigation strategies for all parties.

Monitoring and Reporting: Implementing a structured process for monitoring risks and reporting on risk management activities to project stakeholders. This ensures transparency and accountability, enabling timely decision-making and adjustments to risk management strategies as required.

By integrating these standard proportionate project risk management practices into the workstream project framework, the likelihood of cost overruns can be further minimised. This comprehensive approach ensures that risks are managed efficiently and effectively, supporting the successful completion of the works within the anticipated budget and timeframe.

9. Equality Implications

Yes, for individual work streams.

There are no adverse equality implications associated with works to reduce flood risk.

10. Corporate Implications

None

11. Options Considered

Individual workstreams consider all potential options as standard, including a 'do nothing' option.

Author:

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Appendices:

Appendix A – Flood Risk Team Overview

Appendix B – Environment Agency letter

Appendix C – Photographs of recent Victorian sea wall improvement projects

Background Papers:

Local Flood Risk Management Strategy [Link to Local Flood Risk Management Strategy](#).