

POLICE, FIRE AND CRIME PANEL REPORT

Meeting Date	23 April 2026
Report Title	Prevention & Early Intervention / Targeted Prevention - Data Driven Approaches and Emerging Technologies at NYFRS

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Purpose of this report

The purpose of this report is to outline the development of preventative, data-driven approaches used to identify high-risk locations and individuals and to provide updates on the programmes and operations currently in place, or planned, by North Yorkshire Fire and Rescue Service (NYFRS).

The report also sets out how NYFRS is preparing to meet emerging environmental and technological challenges, such as increased flooding and risks associated with e-bikes and other lithium-ion powered devices, through targeted investment, strengthened collaboration and proactive prevention work.

This work is framed by and directly aligned to the priorities set out within the North Yorkshire Fire and Rescue Plan, which provides the strategic focus and direction for the Service. The report therefore highlights NYFRS is delivering against the Plan's ambitions and ensuring that prevention, community safety and resilience remain at the forefront of local service delivery.

Both NYP and NYFRS provide regular performance updates on the effectiveness of early intervention and prevention activities to the Deputy Mayor's Strategic Oversight Boards and Online Public Meetings (OPMs).

North Yorkshire Fire and Rescue Service

1.0 Background

Data-driven prevention and early intervention are central to NYFRS's Community Risk Management Plan (CRMP) 2025-29 and its Protection and Prevention Strategies. The Service's approach is driven through the use of risk data, targeted activity, and integrated working with partners to reach those most at risk at the earliest opportunity, reducing the likelihood of requiring an emergency response.

This is detailed in the CRMP [CRMP-final-screen-version-Dec-2025.pdf](#),¹ which states:

"Digital, data and technology underpin all areas of fire and rescue service business, from front-line response to the targeting of our interventions; from how we manage risk to how we look after our people. By harnessing accurate data, we can make evidence-based, informed decisions, allocate resources efficiently, and tailor prevention strategies to the unique risks of our communities.

The most recent inspection by His Majesty's Inspectorate of Constabulary and Fire & Rescue Services (HMICFRS), published in June 2025, recognised significant improvements in how NYFRS understands and prevents risk. The Service was graded *Good* for *understanding risk* and *preventing fires and other risks*, reflecting the impact of more

¹ <https://www.northyorkshire.gov.uk/wp-content/uploads/2025/12/CRMP-final-screen-version-Dec-2025.pdf>

robust data-led targeting and early intervention since the previous inspection cycle, and reflects the journey towards outstanding grades.

2.0 Use of Digital, Data and Technology

NYFRS has significantly strengthened the way it uses data to identify who is most at risk, the nature of those risks, and where they are most likely to occur. The Community Risk Profile 2025, available to read at [Community Risk Profile 2025 - North Yorkshire Fire & Rescue Service](#)², sets out all foreseeable fire and rescue-related risks, including accidental dwelling fires, road risk, fires affecting businesses, and climate-related risks such as flooding and wildfires.

It brings together a wide range of data sources and intelligence to provide a comprehensive, evidence-based assessment of risk across York and North Yorkshire, supporting targeted prevention, protection and response activity. It brings together:

- Incident and demographic data
- Vulnerability and safeguarding indicators
- Geographic and rurality factors (including response time impacts)

This has enabled a targeted approach, prioritising households, individuals, and premises assessed as being at *High* or *Very High* risk, as well as specific locations such as particular stretches of road or waterways. It also supports tailoring the most appropriate type of engagement, ranging from universal prevention activity to targeted education and engagement programmes, and specialist risk-reduction interventions.

3.0 Interventions and Impact

3.1 Home Fire Safety Visits

The most tangible impact of the data-driven, people-centred approach is seen in prevention delivery:

- During 2025/26, Home Fire Safety Visits (HFSVs) increased by 42% to 6,353, significantly exceeding the target of 5,500. This included a 31% increase in visits to *High* and *Very High* risk households compared with the previous year. Overall, 68% of all HFSVs were delivered to households assessed as *High* or *Very High* risk.
- The introduction of a digital partner referral application (developed with Safelincs and the National Fire Chiefs Council (NFCC)) enables health, housing, and social care partners to refer vulnerable individuals quickly and securely. NYFRS was the first service to implement this with NHS partners. Partner referrals into NYFRS increased by 30% in 2025/26 to 2,345, demonstrating strong partner engagement and improved identification of vulnerable residents.
- Implementation of a Post-Incident Engagement (PIE) Policy, supported by full crew training, has resulted in a significant increase in post-incident HFSVs.

These interventions demonstrate a clear shift from volume-based activity to risk-led early intervention and education.

3.2 Public Safety Service

Within Craven, NYFRS and NYP fund a joint Public Safety Service. Public Safety Officers proactively find and engage isolated or minoritised residents; deliver person centred prevention aligned to fire, police and NHS priorities; and help build rural community resilience. This aligns with the focus on early intervention, safeguarding and reducing harm.

3.3 Emerging Technologies

² <https://www.northyorkshirefire.gov.uk/about-us/who-and-what/community-risk-profile-2025/>

The way we power our lives and heat our homes is changing, with infrastructure projects being developed across our region to harness renewable technologies.

Lithium-ion batteries present a particular challenge for firefighting and are becoming increasingly common, whether in transport (such as cars and scooters) or for large-scale energy storage within the National Grid. NYFRS shares nationally agreed NFCC guidance with developers but is not a statutory consultee in the planning of these sites. The Service ensures it is aware of site locations and that appropriate training and equipment are in place to respond to incidents. NYFRS has a dedicated webpage which provides advice to developers concerning Battery Energy Storage Systems (BESS) and can be read here [Battery Energy Storage Systems - North Yorkshire Fire & Rescue Service](https://www.northyorkshire.gov.uk/business-safety/battery-energy-storage-systems/)³.

The NFCC has published comprehensive fire safety guidance for e-bikes and e-scooters aimed at both the public and fire and rescue services. This guidance focuses on safe purchasing, charging, storage, and battery disposal, highlighting risks such as thermal runaway, rapid fire spread, toxic fumes, and re-ignition. It strongly advises against charging devices on escape routes or overnight and stresses the importance of using approved chargers and batteries.

This guidance is reinforced through the NFCC's *Charge Safe* campaign, which promotes consistent national prevention messaging. The campaign targets households, delivery riders, landlords, and residents of flats and HMOs, where risk is higher due to charging in shared or confined spaces.

NYFRS has incorporated this guidance into HFSVs, updating content to reflect risks associated with emerging technologies such as lithium-ion batteries used in e-scooters.

NYFRS has also developed and rolled out specific training for crews to deal with electric vehicle fires and will continue to monitor developments and plan its response accordingly.

3.4 Road Safety

NYFRS works in partnership with other organisations through the York and North Yorkshire Road Safety Partnership to deliver targeted road safety education and engagement, with a particular focus on vulnerable road users.

The methodology developed by the National Fire Chiefs Council in collaboration with Operational Research in Health Limited is used to identify the likelihood, consequence and overall risk of road traffic collisions by road type, helping to target interventions more effectively.

NYFRS FireBike deployments increased from 32 in 2023/24 to 58 in 2024/25, concentrating on high-risk motorcycling routes and known collision hotspots.

3.5 Water Safety and Climate-Related Events

Climate-related incidents such as flooding and wildfires are reflected as risks and *Areas of Focus* in the NYFRS Community Risk Management Plan 2025–2029. Through Local Resilience Forums, NYFRS contributes to shared risk assessments, joint training, and coordinated response arrangements, ensuring alignment of resources and expertise across agencies.

In April 2025, the Mayor publicly welcomed and promoted £9.7 million of Government funding for flood defence and alleviation schemes across York and North Yorkshire, supporting projects including the Tadcaster Flood Alleviation Scheme, Clifton Ings in York, sea wall improvements at Scarborough's North Bay, schemes in Malton, Norton, Kirkbymoorside, and Stokesley, and nature-based interventions such as re-wetting the Great North Bog in the Dales and North York Moors.

The risk assessment undertaken as part of the previous CRMP (the Risk and Resource Model 2022–25) led to the introduction and investment in a specialist water rescue unit in Craven.

The Service has increased engagement activity in response to emerging incident trends and environmental risk data, including risks associated with waterways and wildfires. The Prevention Team continues to make effective use of water safety flumes and video presentations in schools and other educational settings. This equipment can simulate

³ <https://www.northyorkshire.gov.uk/business-safety/battery-energy-storage-systems/>

different water hazards to demonstrate hydraulics and dangers near weirs, waterfalls, and other environments. Engagement activity primarily takes place during the summer months when water-related risk is highest.

At the Deputy Mayor's OPM in June 2025, NYFRS delivered a presentation outlining its approach to wildfire risk reduction and response. This highlighted targeted prevention activity, education and engagement programmes, including youth-focused initiatives delivered during summer holiday periods. The presentation also set out partnership working arrangements through the Local Resilience Forum, collaboration with National Trust Rangers, delivery of the Farm Fire Safety campaign, and joint working with organisations whose activities may increase wildfire risk. This includes joint patrols in known high-risk areas during peak periods. Further detail is available in the presentation at [Online Public Meeting – June 2025 - Prevention and Response to Wild/Moor Fires](#)⁴

Following the Langdale Moor fire, NYFRS has strengthened its preventative work with partners by enhancing public safety messaging across social media. This includes working with partners on the planned installation of additional safety signage at high-risk locations, as well as a constructive site visit with Department for Environment, Food & Rural Affairs (DEFRA). The visit underscored the importance of closer coordination between national government departments, local services and other key stakeholders to effectively mitigate wildfire risk in the months ahead.

NYFRS is also increasing its provision of wildfire teams equipped with specialist vehicles, equipment, and training. A community asset register is being developed to formalise arrangements with partners who can support these incidents. The Service will enhance wildfire training and identify alternative vehicles, equipment, and personal protective equipment to strengthen its wildfire and rural response.

NYFRS is developing a Community Asset Register and formalising contracts with third-party providers to support our response to wildfires and other Major Incidents.

The Mayor and Deputy Mayor, alongside the Panel, continue to make representations to Government to ensure that the funding formula reflects geographic scale and climate-related risks. They have strongly urged that flooding response is made a statutory firefighter duty and reflected in future funding formulas.

3.6 Protection (Business Fire Safety)

NYFRS Protection teams help keep businesses, buildings, and building users safe by providing support, guidance, and, where appropriate, enforcement to ensure fire safety standards are met. The Service has implemented a 24/7 response from specialist Protection Officers to support operational crews and the public where issues arise.

Intervention visits are allocated through the data- and intelligence-led Risk-Based Intervention Programme (RBIP), ensuring resources are directed at the highest-risk premises. All known *High Risk* premises are visited by specialist staff within a rolling three-year period, in line with national guidance.

A quality-assurance process has also been introduced to ensure audits are completed to the appropriate standard and by suitably trained and qualified staff.

Following the Grenfell Tower tragedy, the Government committed to remediating buildings with unsafe cladding and wider fire safety issues. The National Remediation Acceleration Plan sets out expectations that:

- All buildings over 18m within government-funded schemes are remediated by 2029.
- All buildings over 11m are either remediated, scheduled for remediation, or subject to enforcement by 2029.

To date, all 18m+ high-rise buildings in York and North Yorkshire audited by NYFRS have been assessed as not requiring remediation. Over the past 18 months, the York and North Yorkshire Combined Authority, NYFRS, and local authority partners have actively started to implement a Local Remediation Acceleration Plan for medium-rise buildings (11m–18m). This plan sets out a clear strategy for identifying, prioritising, and remediating higher-risk

⁴ <https://www.northyorkshire-pfcc.gov.uk/police-oversight/governance/governance-process/corporate-scrutiny-board/opm19june2025/>

buildings, supported by enhanced data analysis, risk-based prioritisation, and strengthened oversight to accelerate delivery.

4.0 Key Areas for Future Focus

Looking ahead, NYFRS is focusing on:

- Further embedding data analytics to evaluate impact, not just activity levels.
- Deepening partner data-sharing to strengthen and develop collaboration opportunities with partner organisations to deliver effective, data driven interventions that reduce risk, with a particular focus on strengthening relationships with housing, social care and health sectors.
- Strengthening referral pathways for Home Fire Safety Visits through trusted partners, alongside proactive use of incident data to identify vulnerable individuals.
- Strengthening wildfire learning and prevention by working with partners including local authorities, Yorkshire Water, national wildfire leads, academic partners and DEFRA.
- Using learning from HMICFRS to refine targeting and prioritisation.
- Improving outcome measures to demonstrate reductions in risk and harm over time.