

**Climate Emergency Policy and Scrutiny  
Committee**

**28 February 2023**

Report of the Assistant Director of Policy and Strategy  
Portfolio of the Executive Member for Environment and Climate Change

**Climate Change Strategy:  
Strengthening York's Resilience to Climate Change**

**Summary**

1. In October 2021, the Council unanimously agreed to ask Executive to report on the city's climate resilience.
2. In December 2022, Council approved the Climate Change Strategy which sets out objectives to strengthen York's resilience to climate change, and in the same month, Executive approved the Climate Change Action Plan.
3. In preparation for climate change, the Yorkshire and Humber Climate Commission (YHCC) have launched the Climate Adaptation Programme. The Programme sets out how councils can prepare for the risks of adverse climate, with the expectation that activity takes place throughout 2023. This includes plans to undertake deeper council-wide climate risk assessment to further prevent and protect against future climate impacts.
4. One of the outcomes of the YHCC Programme will be the co-development of York's Climate Adaptation Strategy and Plan, for approval at a future Executive Member Decision.

**Background**

5. According to the World Resource Institute<sup>i</sup>, global temperatures have so far risen by 1.1°C, and already the planet has seen an increase in natural disasters such as flooding, hurricanes, and other extreme natural events.
6. Working with the BBC, the Met Office created a visualisation tool that shares how increases in global temperatures will affect local

areas: [What will climate change look like in your area? - BBC News](#). It predicted that York will see warmer wetter winters and drier hotter summers.

7. The Met Office has developed a list of expected impacts on urban areas, listed below:
  - Heat: increased energy demand for cooling
  - Health: increased health risks from heat stress
  - Transport: increased disruption due to heat (for example: rail/road buckling)
  - Drought: risk to water supplies
  - Heavy rainfall: increased risk of river and surface water flooding
  - Drainage: increased disruptions to drainage systems
  - Energy: infrastructure at risk from over-heating or flooding
  - Environment: risk to biodiversity (plants and animals)
8. In 2022, York experienced the hottest day ever recorded at 38°C. This exceeded estimates for the hottest summer day of 35.6°C if global average temperatures increase 2°C above pre-industrial levels, demonstrating the urgency of action.
9. Across Yorkshire and Humber unprecedented summer heatwaves had temperatures rising above 40°C. During the heatwaves, NYLRF managed regional risks in line with multi-agency incident management and the council stood up silver command. Issues at the time included fires in rural areas threatening isolated homes and farms, overhead electric cable disruption and road tarmac melting causing travel disruption.
10. During the July 2022 heatwave, West Offices suffered an electrical malfunction from overheating causing the sprinklers to activate leading to disruption of council services.
11. Increased frequency of adverse weather events as a result of the changing climate brings multiply impacts that every council service will need to be ready to address. To prepare for increases in global temperatures and the impact it brings locally and to council services requires a shift in how the council responds, whilst learning from the council's well-rehearsed response to flooding.

12. Adapting to climate risk is a feature of the CDP rating process and by having an Adaptation Strategy and Plan in place will contribute to the evidence to retain York's A rating.

### **Social impact**

13. Public Health confirm that as a result rising temperatures, hospital admissions will rise from asthma and dehydration (particularly amongst the elderly/younger populations).
14. Higher temperatures lead to excess deaths, with 82 excess deaths per day reported across the UK as a result of the July 2022 heatwave. None were recorded in York.
15. With heatwaves typically in the summer months there is the risk that exams are disrupted, with temporary school closures or exam halls overheating.
16. The Cost of Living report at Executive in November 2022 details how rising energy costs and inflation is driving more of York's households into poverty. As more of York residents struggle to balance household income and expenditure, the ability for residents to respond to climate risk lessens.

### **Climate resilience risks for York**

17. In response to the October 2021 Council motion "*Government Must Work with Councils to Tackle Worsening Heatwaves and Extreme Weather*", the council has begun work to identify the most significant threats of climate risk to York.
18. Using the UK Climate Change Risk Assessment, a draft report is being prepared identifying key risks for York. The UK Climate Change Risk Assessment being considered are:
  - (i) Risk to soils from changing climatic conditions, including seasonal aridity and wetness
  - (ii) Risks to food safety and food security
  - (iii) Risks to terrestrial species and habitats from changing climatic conditions and extreme events, including temperature change, water scarcity, wildfire, flooding, wind, and altered hydrology
  - (iv) Opportunities from new species colonisations in terrestrial habitats

- (v) Risks to people, communities and buildings from river and surface flooding
  - (vi) Risks to building fabric
19. Each of these risks are being explored further with impacts against York's economy, health, land, habitat loss, species loss, natural asset, and heritage specified for an anticipated 2°C warming by 2050.
  20. In addition, a more detailed analysis is underway to understand wider risks, learning from the wider region and drawing on the Met Office urban climate change risks.
  21. The draft report will be developed to reflect both the UK Climate Change Risk Assessment risks and the growing evidence base and good practice from across the region, including more information about the social and economic impacts on different resident and community groups, the impact on the council's workforce to operate in extreme temperatures and risks and issues identified by partner organisations.
  22. In addition, the initial analysis took place before the heatwaves in 2022 and the predicted increase frequency of heatwaves in the future - it will also be updated to reflect these changing predictions.
  23. When completed, the report will be shared with the Executive Member for consideration.

### **Climate resilience risks in York: flooding**

24. York is already significantly ahead of adapting to the impact of increased river flooding. City of York Council is a lead local flood authority leading on the management of local flood risks.
25. A report about the 5-year multi-partner York and North Yorkshire Catchment Flood Management Project is included in **Annex A**. The project plans to better understand how land management upstream can affect flood risk downstream and aims to build a future legacy of 'natural flood management' in the catchment area.
26. To adapt and prepare for increased river flooding as a result of climate change, the council has made a significant commitment, working with the Environment Agency on the delivery of c£100m spent on defences and dedicated resource working at a local and regional level.

## **Yorkshire and Humber Climate Commission (YHCC) Adaptation Programme**

27. In response to emerging climate risk and to strengthen regional climate resilience, YHCC has launched an adaptation programme that will run throughout 2023. It is being run as a pilot with learnings shared with LGA (**Annex B**)
28. The programme supports local authorities develop the strategies, plans, and actions to become more climate resilient, both across the area they serve and within the council itself. It is comprised of a pathway with work concluding in December 2023.
29. By working at a regional level, there is the opportunity to share expertise, reduce duplication and identify future funding opportunities.
30. By the end of the programme, York will have developed a Climate Adaption Strategy and Action Plan aiming at strengthening York's climate resilience and reflecting neighbouring authorities' own adaptation strategies and plans.

### **Strengthening York's climate resilience**

31. The Climate Change Strategy sets out the below objectives to strengthen climate resilience:
  - 2.5 Make our buildings climate resilient – protect our built environment from potential flooding and overheating
  - 3.5 Futureproof the infrastructure – ensure our transport infrastructure can withstand extreme weather events
  - 5.4 Increase business resilience to climate risk – ensure businesses are not adversely affected by changing climate and identify new opportunities for growth
  - 6.4 Reduce the impacts of extreme weather events – use our natural environment to reduce risks and impacts of flooding and overheating
32. To respond to these objectives and prepare an Adaptation Strategy and Action Plan that reflects neighbouring authorities plans, the council will:

- a. Update the draft Climate Risk report to understand the totality of risks, including lessons learned from across the region, the social impact, impact on the workforce together with risks and issues raised by partners – published in Spring 2023.
  - b. Work with region (through the YHCC Programme), city partners, and frontline services to develop an Adaptation Strategy – that builds on the work already underway to strengthen York’s resilience to flooding.
  - c. Develop a costed Action Plan that explores both quick wins and longer term / systems change - with an accompanying equality impact assessment setting out how actions do not inadvertently disadvantage communities across the city.
33. The Executive member for Environment and Climate Change will be invited to approve the Climate Risk report, Adaptation Strategy and Action Plan. Approved adaptation actions will be added to the Climate Change Action Plan.

**Contact Details**

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**Chief Officer Responsible for the report:**

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**Report  
Approved**



**Date** 15/02/23

**Wards Affected:**

**All**

**For further information please contact the author of the report**

**Background Papers:**

Council October 2021 ([Public Pack](#))[Agenda Supplement Agenda Supplement for Council, 21/10/2021 18:30 \(york.gov.uk\)](#) – item 6 (ii)

Council December 2022 [Agenda for Council on Thursday, 15 December 2022, 6.30 pm \(york.gov.uk\)](#) item 36

Executive November 2022

<https://democracy.york.gov.uk/ieListDocuments.aspx?CId=733&MId=13292&Ver=4>  
item 47

## **Annexes**

Annex A: York and North Yorkshire Catchment Flood Management Project

Annex B: Yorkshire and Humber Climate Commission Adaptation Programme

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<sup>i</sup> <https://www.wri.org/climate>

<sup>ii</sup> [Effects of climate change - Met Office](#)