



**ENVIRONMENT AND CLIMATE CHANGE OVERVIEW AND  
SCRUTINY COMMITTEE – 21 JUNE 2022**

**CORPORATE CLIMATE CHANGE RISK ASSESSMENT REVIEW  
2021**

**REPORT OF THE  
DIRECTOR OF ENVIRONMENT & TRANSPORT**

**Purpose of the Report**

1. The purpose of this report is to advise the Committee of the outcome of a Climate Change Risk and Resilience Assessment which has been carried out to consider the climate change risks faced by the County Council. A copy of the full Assessment report is attached but the key findings, recommendations and next steps are set out below.

**Policy Framework and Previous Decisions**

2. The Cabinet approved a new Environment Strategy 2018-2030 on 6 July 2018. The vision of the Strategy is that “Leicestershire County Council will minimise the environmental impacts of its own activities and will contribute to the improvement of the wider environment through local action. We will continue to play a significant role in protecting and enhancing the environment of Leicestershire, meeting the challenges and opportunities of climate change, and seeking to embed environmental sustainability into both social and economic development in the County.”
3. A revised Strategy was subsequently adopted by the County Council on 8 July 2020, to account for the Council’s declaration of a Climate Emergency in May 2019.
4. Subsequently, the County Council signed up to the UK100 Race to Zero Pledge and committed to achieving net zero emissions for Leicestershire by 2045.

**Background**

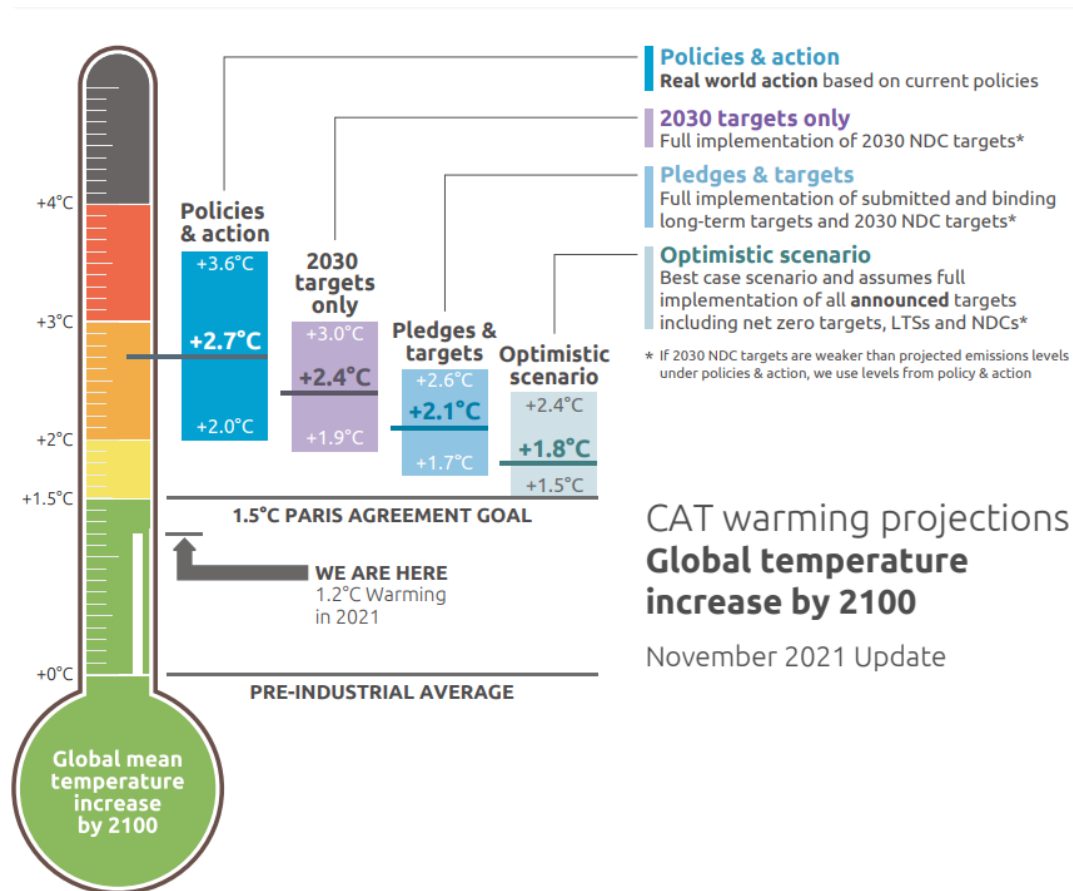
5. As part of the Environment Strategy 2009 – 2020, there was an action to undertake a comprehensive assessment of climate change risks to increase the Council’s resilience to the predicted changes in climate.

6. This comprehensive assessment was completed in 2011 with support from Climate East Midlands. The assessment exercise was used to inform the development of a Climate Change Risk Register and Climate Change Resilience Action Plan. Regular reviews of the Risk Register and the Action Plan have taken place since that time.
7. Work on a further review started in late 2019 and this showed that since 2011 there had been significant improvement in the understanding of the impacts of climate change and of the resulting risks. It was determined that the comprehensive climate change risk assessment exercise be revisited in light of this added information. The majority of the work to carry out the risk assessment exercise was carried out during 2020 and 2021.
8. The report first provides an overview of the latest scientific evidence on global and UK climate change projections and recent weather changes in the UK. It then looks at the latest independent assessment of UK climate change risk by the Government's Committee on Climate Change.
9. The report goes on to explain the methodology used to undertake the assessment exercise and then sets out the key findings in relation to Council services, in particular the high risks identified, the conclusions drawn from these findings and the subsequent recommendations and next steps.

### **Climate Science**

10. Even if the latest international political commitments to reduce greenhouse gas emissions are broadly successful, the impacts of climate change will continue to be felt (and almost certainly increase) for the rest of this century, both globally and in the UK.
11. The average global temperature increase so far, compared to pre-industrial times, is approximately +1.2°C. There are many scenarios for what will happen in future, depending on the speed and scale of action taken to reduce global greenhouse gas emissions. The potential temperature increase by 2100 ranges from a minimum of +1.5°C to well over 5°C, with significant uncertainty bands in each case.
12. Much of the uncertainty relates to what actions societies as a whole will take. This is illustrated by the latest projections by Climate Action Tracker, based on commitments up to and including the 26th UN Climate Change Conference of the Parties (COP26), as shown in Figure 1. This shows that based on current real-world action against current policies global average temperatures are expected to increase by +2.7°C by 2100.

Figure 1: Climate Action Tracker global temperature projections (Nov 2021)

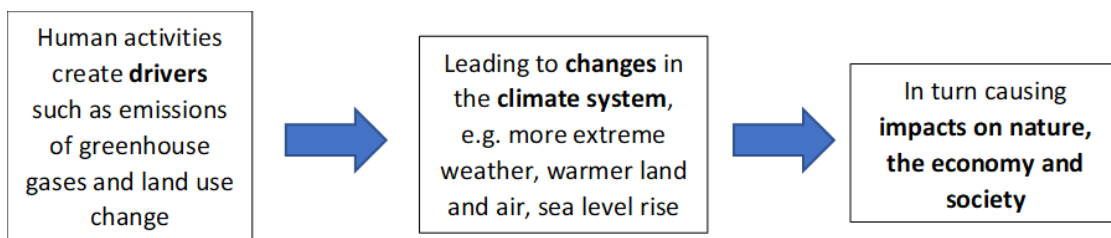


\* LTS means Long Term Strategies (for low carbon development) and NDCs are Nationally Determined Contributions - which are the ratcheted targets set by each country every five years to achieve the 1.5C degree temperature rise limit set out in the Paris Agreement.

13. The advice of the Government's specialist advisers, the UK Committee on Climate Change, is that for planning purposes, organisations should use +2°C by the end of the century (or 2080s) as a minimum assumption, and that risk registers should also include the impacts of +4°C. This can be summarised as "Plan for +2°C; Prepare for +4°C".
14. The main message is that further climate change will happen and will affect the UK and Leicestershire, directly and indirectly. It is therefore essential for organisations to assess the risks arising from this and, where high risks are identified, to adapt accordingly over the short, medium and long-term.
15. The latest detailed forecasts of climate change in the UK were produced in 2018 by the Met Office ("UKCP18"). The headline forecast is that 'on average, for the UK as a whole, there is a greater chance of hotter, drier summers and warmer, wetter winters during the rest of this century'.
16. Recent scientific reports confirm that rapid climate change is still occurring in the UK, very much in line with forecasts. According to the Royal Meteorological

Society (2021), “the UK’s climate has continued to warm, with 2020 the first year to have temperature, rain and sunshine rankings all in the top 10”.

17. Not only were the last 30 years (1991-2020) 0.9°C warmer on average than the previous 30 years (1961-1990), but the greatest warming was experienced across the East Midlands and East Anglia where average annual temperatures had increased by more than 1°C.
18. Six of the ten wettest years for the UK (in 160 years of recording) have occurred since 1998. By contrast, Spring 2020 was exceptionally dry and sunny. This shows that very different weather extremes can occur closely to each other.
19. Work by the Met Office has shown the relationship between the key drivers of climate change, the climate system, and natural and socio-economic impacts. This can be summarised as follows:



20. Many of these impacts are already evident across the world, within the UK and locally within Leicestershire. These include localised flooding, wildfires, heat stress, water shortages, damage to infrastructure, and the spreading of pests and diseases. These and other impacts are set to get worse and to become more frequent.
21. The Committee on Climate Change published its third Independent Assessment of UK Climate Risk (3UKCR) in June 2021. This assessed 61 risks including risks to biodiversity / habitats, infrastructure and key services. Impacts were assessed on a scale from low to high risk and over a time horizon from now to 2100.
22. The report concluded that:
  - a) climate change is here, already dangerous and will get worse;
  - b) the UK needs to prepare for the coming changes in order to protect people, economy and the environment;
  - c) currently 26% of risks are “high”, increasing to 64% or 79% by 2080s (under +2°C and +4°C scenarios respectively);
  - d) eight risks need urgent attention by the Government within next two years.
23. In response to 3UKCR, the Government published its UK Climate Change Risk Assessment (CCRA3) in January 2022, in which they endorsed the findings of the 3UKCR.

### **Assessment Methodology**

24. A literature review was carried out of the existing Climate Change Risk Register and the Climate Change Resilience Action Plan, as well as relevant new evidence and reports on climate change and climate change risk.
25. The assessment focused on service areas believed to face the highest climate change risks themselves, or to have a key role in managing those risks, and/or which manage key long-term assets (roads and buildings). Services were placed within one of three groups, namely:
  - a) Critical Services - This being those services that provide support to the community, and are vulnerable to severe weather, and/or are critical to the ability of other services to maintain operations during severe weather, e.g., ICT, Public Health.
  - b) Resilience Assurance - Those services that exist for the purpose of ensuring the resilience of other Council services and/or the community, including resilience to the risks of climate change, e.g., Planning, Business Continuity, Flooding.
  - c) Infrastructure Asset Management - Services that are (directly) vulnerable to extreme weather events, and which need to plan for the long-term, because they employ long-term infrastructure assets, e.g., Highways, Property.
26. Interviews were held with relevant officers across these three groups to identify, review and assess the level of risks faced due to climate change. Reviews were carried out of key policy documents, including the Flood Risk Management Strategy, Local Transport Plan, and Adults and Communities Hot and Cold Weather Plans.
27. In completing the climate change risk assessment one of two types of risk assessment were carried out. Generic risk assessments looked at the risks for in-house services, procured (outsourced) services, and knock-on or interactive effects for the given service. Custom risk assessments were carried out for services managing more complex climate change risks, namely Highways and Property Services. These were more detailed and heavily customised to the service area involved.

### **Review Key Findings**

28. The key findings from the review and assessment exercise were as follows:
  - a) Leicestershire is already experiencing extreme weather events.
  - b) Further climate change and changes in weather will happen.
  - c) Changes in weather are impacting the Council and the County already.
  - d) Preparedness for short-term responses to weather events is satisfactory.
  - e) There is less evidence of planning for changes in the risk of acute events.

- f) There are potential gaps in checking suppliers' business continuity plans.
- g) There is good practice in management of longer-term flood risks.
- h) That five service areas have at least one high risk which requires intervention under the Corporate Risk Management Policy & Strategy.<sup>1</sup>
- i) That the Corporate Risk Management Policy & Strategy may not be suitable for assessing risks of a complex and long-term nature as that presented by climate change.
- j) There are high risks of climate impacts on strategic highways and property assets.
- k) It is difficult to consider the Council independently from the County and its suppliers and partners.
- l) That there have already been climate change costs to the Council.

### **Review High Risks**

29. The assessment exercise, using the corporate risk assessment matrix (see Annex 1 of Appendix) identified eight high risks and 56 medium risks from climate change within the service areas assessed, see Table 1.
30. More details on the nature of these risks can be found in Annex 3 of the Appendix.

**Table 1: Summary of assessed medium and high risks**

<b>Team Name</b>	<b>Type of assessment</b>	<b>No. of risks assessed</b>	<b>No. Risks scoring 8 to 12</b>	<b>No. Risks scoring 15 or over</b>	<b>High risks and other comments</b>
Adults and Communities	Generic	7	5	0	Dependent and procured services Flooding  Keep under review - potential high impact
Business Continuity	Specific	4	1	1	Ensuring supplier resilience
Children and Family Services	Specific	3	0	0	
Communications	Generic	5	1	0	Understanding of climate adaptation
Customer Services	Generic	3	3	0	Call handling capacity

<sup>1</sup> Corporate Risk Management Framework sets out the Council's policy and strategy on managing risk within the organisation.

Flood Risk Management	Specific	10	6	1	Update of Flood Risk Management Strategy and mapping
Highways	Specific	16	12	3	Increasing number of assets; small drainage structures; knock-on impacts
ICT Services	Generic	3	0	0	Keep under review - potential high impact
Operational Property Services	Specific	27	12	1	Flooding of Pennine House Mechanical and Electrical services
Operational Property Service Customer Services	Generic	3	3	0	Procedures.
Passenger Transport	Generic	4	1	0	Needs more detailed assessment
Planning Service	Specific	4	3	0	
Public Health	Specific	3	2	0	Needs more detailed assessment
School Food Support	Generic	3	0	0	
Strategic Property Services	Specific	11	7	2	Strategies / policies and building specifications
Waste Management	Generic	3	0	0	Needs more detailed assessment
<b>Total</b>		<b>109</b>	<b>56</b>	<b>8</b>	

### **Review Recommendations**

31. The recommendations of the review report appended are as follows:

- a) That it is acknowledged that climate change is already having impacts on Council assets and operations and will do so increasingly in the coming years, both in the form of acute events and through gradual changes in average conditions.
- b) That it is acknowledged that there is a need to strengthen the way that changes in the risk of acute weather events are taken into account in business continuity and resilience planning, both for the Council and the County.

- c) That it is acknowledged that there are high risks in the medium and long-term from climate change, relating to the management of highways and property assets.
  - d) That individual high-risk service areas should be asked to draw up their own service level action plans, informed by feasibility studies where relevant and supported by the Environment Policy and Strategy team, to help reduce the identified risks.
  - e) That consideration be given to developing a process to budget for and quantify the additional costs of dealing with the impacts of climate change and for adapting to and increasing the Council's and the County's resilience to climate change.
  - f) That a review is carried out into the suitability of using the Corporate Risk Management Policy & Strategy for assessing risks of a complex and long-term nature, as that presented by climate change.
  - g) That consideration be given to the development of a Council and County-wide climate change adaptation and resilience strategy/plan, that takes into account the recent independent assessment of UK climate risk (CCC, 2021) and the Government's forthcoming national climate change risk assessment (3UKCR).
32. These recommendations have been considered by Chief Officers across the Authority and the proposed next steps as detailed below will now be undertaken to begin to address these. Considerable work is needed across all service areas which will take time. The Environment Strategy Delivery Board (ESDB) will oversee delivery of the report recommendations and further reports will be brought to the Environment and Climate Change Overview and Scrutiny Committee as appropriate.

### **Resource Implications**

33. The review report shows that the Council has already seen additional costs due to climate change. An assessment carried out by the East Midlands Regional Assembly in 2010 found that the cost to the County Council of weather-related incidents between 2000 and 2010 totalled an estimated £5m. This included the costs of damage to council buildings caused by rain, flooding and high winds as well as the costs of dealing with fallen trees and river flooding.
34. Analysis for the review report showed that, between 2018-19 and 2020-21, budget measures of about £4.1m were provided for climate / weather related events and damage, including:
- a) £3m to repair road surfaces damaged by heat (2018/19 and 2019/20) (this amount was subsequently recovered in the 2020/21 budget).
  - b) £550,000 for additional drainage and investigation work by the Flood Risk Management team (2020/21).
  - c) £200,000 to Highways for managing overhanging trees (2020-21).



35. It is inevitable that climate change will have resource implications for the Council, both in terms of dealing with the impacts of climate change and from taking action to adapt to and increase the Council's and the County's resilience to climate change.
36. The challenge of estimating the cost of this will be carried out, in part, by the high-risk service areas in drawing up their service level action plans and as part of the process of developing a Council and Countywide climate change adaptation and resilience strategy/plan, as set out in the recommendations of the review report.
37. The Director of Law and Governance and the Director of Corporate Resources have been consulted on the content of this report.

### **Proposed Next Steps**

38. In order to begin to address the key findings of the Assessment and the recommendations made some initial next steps have been identified. These are set out below.
39. The review report will be provided to the Business Continuity team and will feed into its business continuity and resilience planning.
40. The Environment Policy and Strategy team will meet with those services areas identified as having high or medium risks that need to be kept under review to discuss the development of service level action plans to see how the risks could be reduced.
41. The Environment Policy and Strategy team will work with colleagues to explore the practicalities of developing a Council and Countywide climate change adaptation and resilience plan.
42. The development of a process to budget for and quantify the additional costs of dealing with the impacts of climate change and for adapting to and increasing the Council's and the County's resilience to climate change will be undertaken as part of engaging with the service areas with high or medium risks and as part of developing the Council and Countywide climate change adaptation and resilience plan.
43. Discussions will be held with the Head of Internal Audit & Assurance and the Department's Risk Champion about reviewing the suitability of the Corporate Risk Management Policy & Strategy for assessing risks in relation to climate change.

### **Circulation under Local Issues Alert Procedure**

None.

## **Equal Opportunities and Human Rights Implications**

44. This paper provides a report on a review of the County Council's climate change risks and therefore in itself has no equal opportunities or human rights implications.
45. However, how the Council responds to the findings and recommendations of the review is likely to have equal opportunities and human rights implications, particularly as the most vulnerable in our community are more significantly affected by the impacts of climate change.

## **Background Papers**

Environment Strategy 2018-2030

<https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2020/7/13/Environment-Strategy-2018-2030-delivering-a-better-future.pdf>

## **Appendix**

Climate Change Risk and Resilience Assessment 2021 - Final Report

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