



Borough of Telford and Wrekin

Cabinet

16 May 2024

Telford and Wrekin Corporate Climate Change Risk Register

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|---------------------------------|---|--|
| Cabinet Member: | Cllr Carolyn Healy - Cabinet Member: Climate Action, Green Spaces, Heritage & Leisure | |
| Lead Director: | Felicity Mercer - Director: Communities, Customer & Commercial Services | |
| Service Area: | Communities, Customer & Commercial Services | |
| Report Author: | Amy Allen – Climate Change Project Support Officer – Climate Change & Sustainability Ian Wykes - Team Leader - Climate Change & Sustainability | |
| Officer Contact Details: | Tel: 01952 384960 | Email: Ian.Wykes@telford.gov.uk |
| Wards Affected: | All Wards | |
| Key Decision: | Not Key Decision | |
| Forward Plan: | Not Applicable | |
| Report considered by: | SMT – 16 April 2024 Cabinet – 16 May 2024 | |

1.0 Recommendations for decision/noting:

It is recommended that Cabinet:

- 1.1 Notes the importance of addressing the impacts that current and future climate change is/will have on the Council's ability to deliver its services to its residents, communities, and businesses.

Telford and Wrekin Climate Change Adaptation Plan

- 1.2 Approves the attached Corporate Climate Change Adaptation Plan as set out in Appendix A.
- 1.3 Delegate appropriate authority to the Cabinet Member for Climate Change Action, Green Spaces, Heritage & Leisure and the Director for Communities, Customer and Commercial Services to ensure that the risk register is kept under regular review and updates are received by Cabinet on an annual basis.

2.0 Purpose of Report

- 2.1 To set out to Cabinet:
 - The scientific basis of climate change,
 - The importance of addressing the current impacts of climate change and
 - The need to adequately prepare for the future impacts of a changing climate.
- 2.2 The report includes a corporate risk register that assesses the current and future risks of a changing climate and sets out proposed actions to mitigate these, which together form the Telford & Wrekin Climate Change Adaptation Plan.

3.0 Background

- 3.1 In 2019 Telford and Wrekin Council declared a Climate Emergency and set out an ambitious target to ensure its activities and operations are carbon neutral by 2030. This is **climate change mitigation**; implementing actions to reduce the release of carbon emissions into the atmosphere. The Council is already delivering its 'Becoming Carbon Neutral Plan' to reduce our carbon footprint, reporting annually on progress. In 2022/23, the Council had achieved a 60% reduction in emissions compared to a 2018/19 baseline.
- 3.2 However, as a local authority, Telford & Wrekin Council must also ensure that its services are able to react to the current and future predicted impacts of climate change. This is **climate change adaptation**.
- 3.3 The human impact on the Earth's climate is defined as anthropogenic climate change. Since the start of the industrial revolution, the production and release of greenhouse gasses into the atmosphere has been named as the primary driver of the increase in average global temperatures. Figure 1, a graph produced by the Met Office, illustrates this steady increase in the concentration of atmospheric carbon dioxide between 1960 and 2022¹.

¹ [Met Office: What is Climate Change?](#)

Telford and Wrekin Climate Change Adaptation Plan

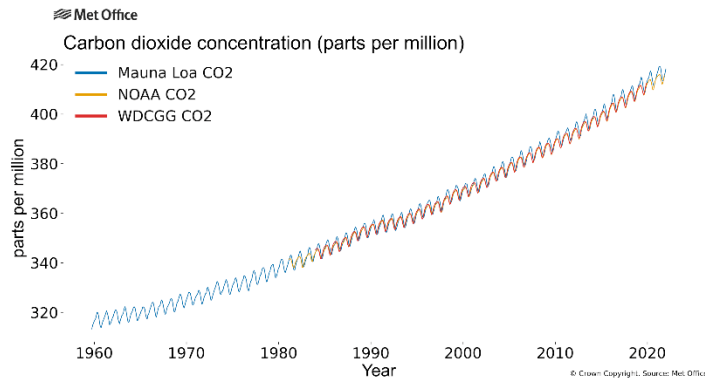


Figure 1: Carbon dioxide concentration (parts per million) (Met Office)

- 3.4 The Intergovernmental Panel on Climate Change (IPCC), the world's most authoritative scientific body on climate change, stated that *'It is unequivocal that human influence has warmed the atmosphere, ocean and land'*². While 2023 saw the hottest year ever recorded, it also saw global sea ice coverage drop to a record low³. These two records, while shocking, encapsulate the impacts of climate change in the world today.
- 3.5 In the UK, it is predicted that climate change will cause warmer, wetter, winters, and hotter, drier, summers. This is coupled with a predicted increase in frequency of extreme weather events, such as storms and droughts. Already, the UK has experienced an increased number of these climate hazards over the last decade. In 2022 alone, the UK experienced 3 storms within a seven-day period (Storms Dudley, Eunice, and Franklin). This is in addition to the five heatwave periods also experienced in 2022, where temperatures exceeded 40°C for the first time on record.
- 3.6 In 2017, a report by the Climate Change Committee (CCC) identified six broad areas of risk facing the UK because of climate change. As illustrated in the infographic below (figure 2), climate change risks cover much more than environmental impact.

² [IPCC AR6 WGI Headline Statements from the Summary for Policymakers](#)

³ [National Oceanic and Atmospheric Administration](#)

Figure SR.1: Top six areas of inter-related climate change risks for the United Kingdom



Figure 2: The top 6 risks facing the UK due to Climate Change (CCC)

- 3.7 In 2022, the IPCC published a report stating that climate change risks and impacts were becoming ‘increasingly complex and more difficult to manage’ and concluded that the increased occurrence of climate hazards would result in hazards occurring simultaneously. This would result in ‘compounding overall risks’⁴.
- 3.8 In addition to causing extreme environmental impact, climate change is inextricably linked to health and wellbeing. Notably, climate change is a huge risk to public health and civil resilience. For example, extreme heat, a climate hazard, was estimated to have caused more than 4500 deaths in 2022⁵ in the UK.
- 3.9 In Telford and Wrekin, some communities have been identified as being vulnerable to extreme heat, which puts many local residents at risk. Figure 3 illustrates the vulnerability of Telford Town Centre, which has been given a potential heat hazard score of 5, the maximum score on the scale⁶. This is an example of an ‘urban heat island’, an urbanised area that experiences higher temperatures than outlying areas.

⁴ IPCC ARC WGII SummaryForPolicymakers.PDF

⁵ BBC: Extreme weather: more than 4500 deaths in England from 2022 heat

⁶ BBC: Check your postcode – Is your area vulnerable to extreme heat?

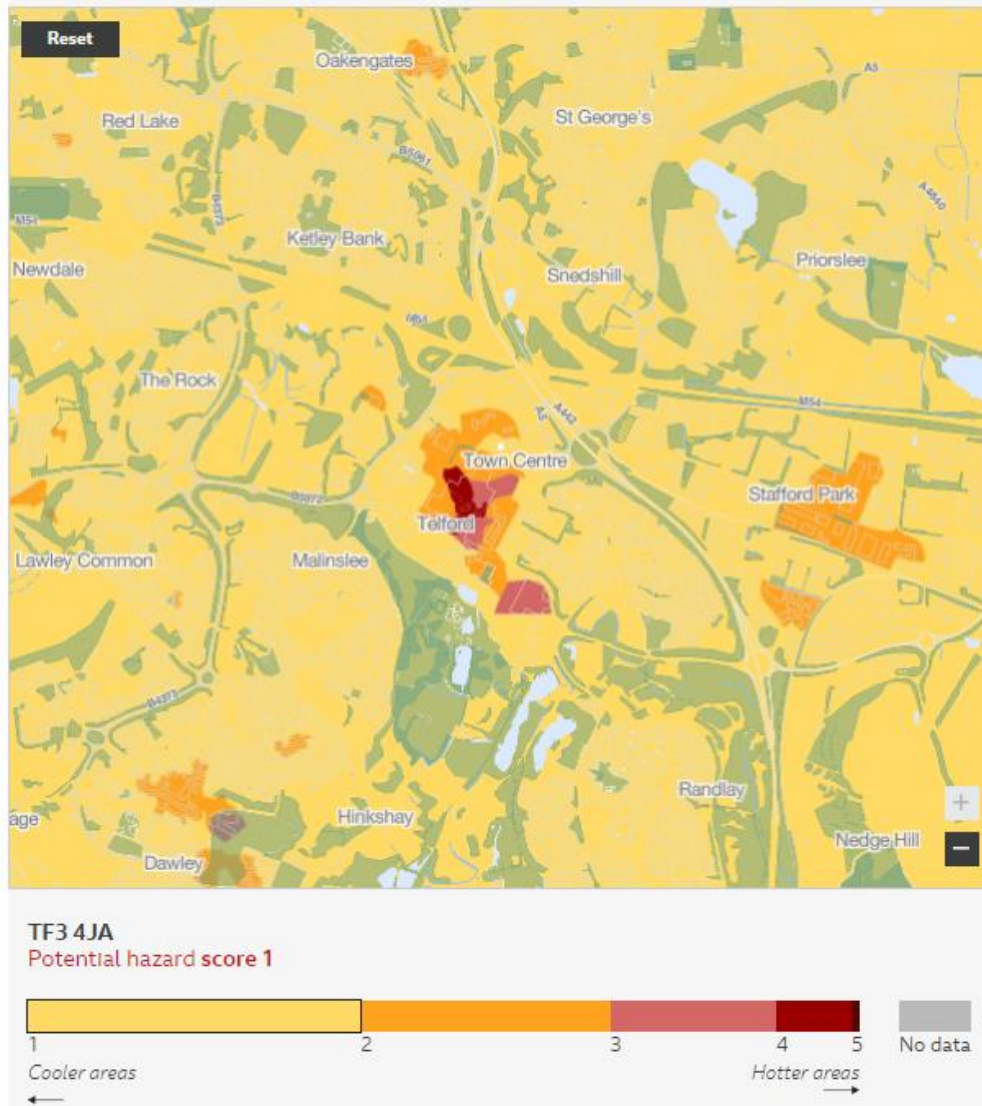


Figure 3: BBC Postcode Heat- Vulnerability Map

3.10 Flooding remains one of the biggest risks to the local area as frequent storms impact on our infrastructure, homes, and businesses. Flooding also poses a significant risk to the delivery of the Councils' services, particularly for the Highways, Flooding, Drainage and Corporate Estate teams.

Climate Change Adaptation:

3.11 Climate change adaptation refers to the process of building resilience against the current and predicted impacts of climate change. As stated previously, the UK is expected to experience an increase in extreme weather events, particularly heatwaves and storms. This will impact the borough's infrastructure, economy, and environment and it is important we are prepared for this.

3.12 Proactively responding to changes in climate results in safer, stronger communities. It is in the interest of the Council to adopt climate adaptation measures to Council services and across the wider borough area. This will

increase the resilience of the Council's services and local communities to future impacts of climate change.

- 3.13 Climate adaptation not only takes account of risks, but it also recognises opportunities that arise from the impacts of climate change. If measures are implemented successfully, climate adaptation co-benefits (such as biodiversity net gain) will arise.
- 3.14 The mechanism of 'adapting' to climate change is often referenced as the 'Adaptation cycle'. Figure 4, a graphic created by the University of Michigan, illustrates the common stages included within the adaptation cycle⁷. This cycle highlights the importance of first identifying risks and assessing vulnerability *before* adaptive measures are implemented. This stage in particular forms a significant part of the Council's approach to climate adaptation.

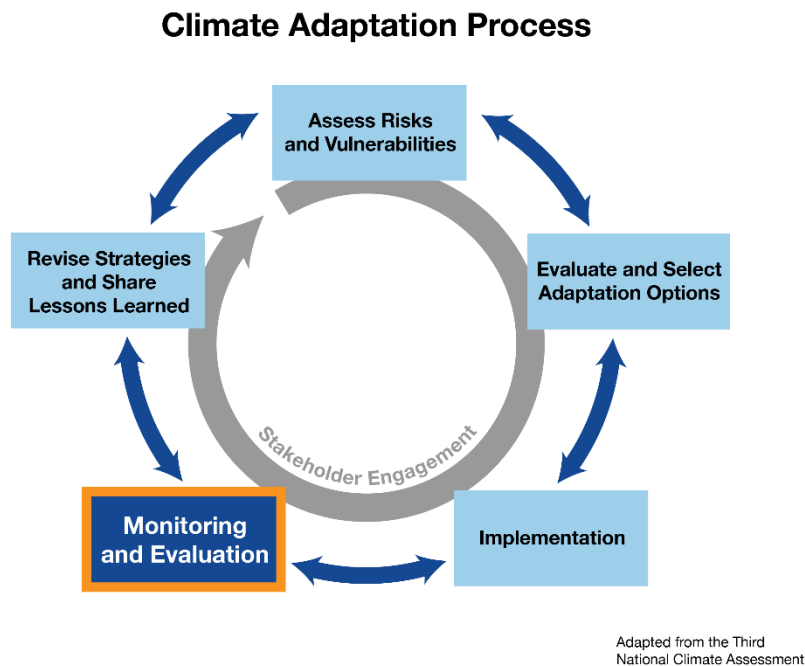


Figure 4: Climate Adaptation Process (University of Michigan)

Climate Adaptation: National Policy context

- 3.15 The UK Government is required by the Climate Change Act (2008) to undertake a Climate Change Risk Assessment every five years. As such, national policy regarding climate adaptation centres around the National Adaptation Programme (NAP) and the UK Climate Change Risk Assessment (CCRA). The latest National

⁷ University of Michigan: Adaptation Monitoring and Evaluation Toolkit

Adaptation Programme, NAP3, sets out the actions that the UK Government and others will take to adapt to the impacts of climate change between 2023-2028.

- 3.16 Alongside the government's leading role in addressing climate adaptation, the NAP requires councils and communities to work together to prepare for and adapt to climate change. Whilst there is no statutory duty for councils to have adaptation plans, the Council has acknowledged that it is a priority due to the current and expected impacts that Climate Change is having in Telford and Wrekin.
- 3.17 The Climate Change Committee (CCC) works closely with central government to advise on climate risks and opportunities, and to evaluate the progress of the NAP. In 2023, a report by the CCC evaluated the success of the NAP2, stating that the NAP2 had not 'adequately prepared the UK for climate change'. Emphasis has now been placed on NAP3 to be 'much more ambitious than its predecessors' and make effective change towards the delivery of climate adaptation measures⁸.

4.0 Summary of main proposals

- 4.1 To build community resilience against the impacts of climate change, identifying risks is vital for risk management. Without identifying and considering the risks, suitable adaptive measures cannot be implemented. Therefore, the development of a Corporate Climate Risk Register will allow the Council to ensure all its plans and policies take full account of climate change adaptation for the benefit of Telford and Wrekin.
- 4.2 The development of the Corporate Climate Change Risk Register started in September 2023. The risk register has been informed by extensive cross Council engagement with officers and members. This has included an adaptation workshop open to all members, and a number of discussions with the Environment Scrutiny Committee. Members of the Committee particularly focused on what is the best support for their communities and how to go about providing this.
- 4.3 Working with Environment Scrutiny Committee in this format is an example of a new approach for members inputting at an early stage into policy development. The success of this project so far has determined that this approach has the potential to be carried across into other Council Scrutiny Committees.

Climate Change Risk Register

- 4.4 The Telford and Wrekin Corporate Climate Change Risk Register has identified the key climate risks to the Council's services and impact this will have on residents, businesses, and the wider community. A high-level risk register is attached as **Appendix A** setting out the key strategic risks. This is based upon, a more detailed full version of the risk register which will be used by the Council to manage these risks at an operational level. The risk register is aligned to the corporate approach to risk management.
- 4.5 To identify risks, the register focuses on the four climatic hazards:

⁸ [CCC: Progress in adapting to climate change – 2023 Report to Parliament](#)

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- Warmer, wetter, winters
- Hotter, drier summers
- Extreme weather: heatwaves
- Extreme weather: flooding and storms

Each risk is scored using the impact and likelihood scoring matrix. A mitigation measure for each risk is required, and a new impact and likelihood score is given based on the mitigation measure being actioned.

- 4.6 Once all the risks were inputted into the register, the most critical and urgent risks from each directorate were identified to form the basis of the overall risk register.
- 4.7 It is acknowledged that not all the measures identified can be delivered solely by the Council using existing resources. Where this is the case, the Council will adopt partnership working. Adopting partnership working will not only strengthen the resilience of the borough through the sharing of resources but build upon an existing community network.

Telford and Wrekin Council:

- 4.8 The Council has already been very active in reacting and preparing for climate change events. However, there has been no overarching consideration of the impacts at a strategic level which this risk register provides.
- 4.9 The Council has already adopted climate adaptation measures to build resilience and maintain service provision, and the risk register will build on this foundation. Examples of measures implemented to date include:
- In 2019, the Council published a Sustainable Urban Drainage Systems (SUDs) handbook for developers.
 - In 2022, the Council adopted the Climate Change Supplementary Planning Document (SPD). The document includes guidance on site and building design including the provision of electric vehicle charging infrastructure, installing renewable energy technology, making development greener and using and managing our natural resources more efficiently.

Monitoring

- 4.10 Adaptation is an ongoing, iterative process. It is of note that there will be no final 'adapted state'; the risk register must always acknowledge changes in local climate impacts and accommodate the continued process of building adaptive capacity and resilience.
- 4.11 The risk register will be a document that is embedded into the Council's overall reporting process. Conversations with Policy and Governance are taking place to ensure that adaptation is included in appropriate mechanisms across the Council.

5.0 Alternative Options

5.1 The alternative would be to not produce a climate change adaptation risk register. This would however result in the Council failing to identify risks to its services and not having the ability to respond to emergencies in a timely, effective, and co-ordinated way. As a result, it would also lead to significant increase in costs and put pressure on service delivery in the future.

6.0 Risks

6.1 An independent assessment, the UK Climate Risk for the UK's third Climate Change Risk Assessment (CCRA3), published in June 2021⁹ sets out the priority climate change risks for the UK. In summary, risks in the report include:

- The impacts of climate change on the natural environment.
- An increase in the range, quantities, and consequences of pests, pathogens, and invasive species.
- The risk of climate change impacts, especially more frequent flooding, and coastal erosion, causing damage to infrastructure services.
- A reduction in public water supplies due to increasing periods of water scarcity.
- The impact of extreme temperatures, high winds, and lightning on the transport network.
- The impact of increasing high temperatures on people's health and wellbeing.
- Increased severity and frequency of flooding.
- Disruption to the delivery of health and social care services due to a greater frequency of extreme weather.
- Damage to cultural heritage assets as a result of temperature, precipitation, groundwater and landscape changes.
- Impacts internationally that may affect the UK, such as risks to food availability, safety and security, risks to international law and governance from climate change that will affect the UK, international trade routes, public health.

Therefore, there are significant risks as outlined should the Council fail to mitigate climate change and ensure that residents, businesses, and the natural environment are able to adapt to the future climate.

7.0 Council Priorities

7.1 The Council's work on climate change and sustainability is a direct response to the Council's priority "Our natural environment is protected, and the Council has a leading role in addressing the climate emergency". However, as a cross cutting agenda it also has a significant contribution towards all other Council priorities including:

- Every child, young person, and adult lives well in their community.

⁹ <https://www.ukclimaterisk.org/wp-content/uploads/2021/06/CCRA-Evidence-Report-England-Summary-Final.pdf>

- Everyone benefits from a thriving economy.
- All neighbourhoods are a great place to live.
- A community-focussed, innovative Council providing efficient, effective, and quality services.

8.0 Financial Implications

8.1 An approved allocation of £4m was included in the capital programme to support Climate Change initiatives; spend in previous years totalled £1.25m which leaves £2.75m available in 2023/24. However, this has been fully allocated to other schemes in the Council's Climate Change Action. Finance will provide support in relation to any bids for external funding as required.

9.0 Legal and HR Implications

9.1 The Climate Change Act 2008 (as amended) establishes a legally binding target to reduce the UK's greenhouse gas emissions by 100% by 2050 when compared with the 1990 baseline. At a local level, Section 19(1A) of the Planning and Compulsory Purchase Act 2004 requires local planning authorities to include in their local plans, policies designed to secure that the development and use of land in the local planning authority's area contribute to the mitigation of, and adaptation to, climate change. In the management of its activities, provision of its services and performance of its functions, local Councils are in a position to play a vital role in meeting the challenges posed by climate change. The Council has wide scope to decide how best to address these challenges.

9.2 The Council has the legal power to undertake the activities set out in the report. Implementation of the proposals in this report may give rise to specific legal issues upon which specific legal advice will be provided as necessary.

9.3 There are no specific human resource implications arising from this report.

10.0 Ward Implications

10.1 This report has a borough wide impact.

11.0 Health, Social and Economic Implications

11.1 The impacts of climate change will continue to have a significant impact on the health and wellbeing of Telford and Wrekin's residents as well as on their social and economic wellbeing, as highlighted in Section 3 of this report. For example, July 2022 saw the highest temperatures on record. Heatwaves can lead to very serious health implications particularly for the most vulnerable¹⁰

12.0 Equality and Diversity Implications

¹⁰ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)30434-3/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)30434-3/fulltext)

- 12.1 The Council's Climate Change Risk Register takes account of the legal requirement to pay due regard to the aims of the Public Sector Equality Duty. Key to this is consideration of people's specific needs based on their protected characteristics.

People who share protected characteristics of age, race, ethnicity, and disability are often disproportionately affected by climate change and its consequences. This is true locally and internationally. Extreme weather events, for example heat waves most detrimentally affect older residents and those with pre-existing respiratory and cardiovascular conditions.

The success of our climate change activity relies on active participation by the whole community otherwise adaptation responses could worsen inequalities or create new ones in the future. Steps will be taken to make sure that future events are inclusive, and the differing needs of individuals are considered so that they can access activities and contribute effectively.

13.0 Climate Change and Environmental Implications

- 13.1 This report sets out how Telford and Wrekin Council is addressing the current and future impacts of climate change and is therefore a key mechanism to support the Council's climate change work.

14.0 Background Papers

- 1 [Telford and Wrekin Becoming Carbon Neutral and Plastic Free – October Cabinet 2023](#)

15.0 Appendices

- A Telford and Wrekin High Level Corporate Climate Change Risk Register

16.0 Report Sign Off

| Signed off by | Date sent | Date signed off | Initials |
|---------------|------------|-----------------|----------|
| Legal | 03/04/2024 | 11/04/2024 | EH |
| Finance | 03/04/2024 | 10/04/2024 | DR |