

Warwick District Council Climate Change Adaptation Plan

1. Introduction

The degree to which the climate continues to change depends on the extent to which greenhouse gas emissions are reduced. However, even if the emission of all greenhouse gases stopped tomorrow, the gases already in the atmosphere would continue to drive climate change for at least the next 30 years. In short, climate change is now unavoidable. Preparations to deal with its impacts must therefore be made. This process is known as climate adaptation.

Data from the Met Office shows that in the UK, climate change is likely to result in warmer, wetter winters and hotter, drier summers. In addition, the frequency and intensity of extreme weather events such as storms and high winds are expected to increase. Climate adaptation should focus on increasing resilience to the likely impacts of these weather trends.

Councils have important roles to play in their local areas through their functions as service providers, estate managers and community leaders. They are also Category 1 Responders under the Civil Contingencies Act 2004 and have responsibility for planning, preparing and responding to emergencies, included those related to extreme weather and climate change impacts.

National context

Under the 2008 Climate Change Act, the Climate Change Committee (CCC) was established as an independent statutory body with a responsibility to advise the UK government on preparing for climate change and to update Parliament on implementation of climate programmes, including the Government's National Adaptation Programme.

In June 2021, the CCC published the third [UK Climate Change Risk Assessment \(CCRA3\)](#) which sets out the priority climate change risks and opportunities for the UK. In response to CCRA3, the UK Government published the third [National Adaptation Programme \(NAP3\)](#) in July 2023 which sets out the actions that will be taken to adapt to the impacts of climate change in the UK.

Regional context

Warwickshire County Council (WCC) published their [Climate Change Adaptation Plan](#) in 2023. It includes a localised assessment of climate change hazards, a full risk assessment based on the risks and opportunities identified in CCRA3 and a framework for delivering adaptation across Warwickshire split into 4 different themes: 1) Mainstreaming resilience into Council operations; 2) Water, land and biodiversity; 3) Infrastructure, places and people; and 4) Mainstreaming climate change into emergency planning and response.

The [West Midlands Climate Change Adaptation Plan](#) was published in 2021. It sets out the adaptation actions that should be considered for implementation by decision makers in the West Midlands, to ensure that the natural environment, people, infrastructure, buildings and businesses are prepared for the

impacts of climate change. It provides climate projections for the West Midlands, a list of climate risks based on those identified in the CCRA3 and an adaptation plan that sets out a series of possible responses to the risks and their impacts.

Local context

In 2019 Warwick District Council declared a Climate Emergency and subsequently developed a [Climate Change Action Programme \(CCAP\)](#) which was agreed and published in 2021. The CCAP sets out 3 ambitions:

Ambition 1 – To ensure the Council is net zero carbon by 2025 and that services provided through contractors include carbon reduction targets to deliver net zero by 2030.

Ambition 2 – To reduce net carbon emissions from across South Warwickshire by a minimum of 55% by 2030, with plans to further reduce carbon emissions to net zero by 2050.

Ambition 3 – To enable our environment and communities to have adapted to the potential of at least 3 degrees rise in global temperatures by 2100.

This document contributes to the delivery of Ambition 3.

Purpose of this plan

This plan sets out the climate change adaptation actions that should be considered for implementation by Warwick District Council (WDC) to ensure that our natural environment, people, buildings and businesses are prepared for the impacts of climate change. It uses the findings from the West Midlands and Warwickshire County Council Adaptation Plans, along with the outcomes of CCRA3 and NAP3, to create a localised plan for Warwick District. It is primarily a document for Warwick District Council to use, focusing on actions within the Council's areas of influence and those actions it has direct control over. However, it does not discount partnership working to seek other opportunities for wider climate change adaptation.

This document provides:

- A summary of climate projections for Warwick District, outlining how the climate is likely to change.
- An overview of potential climate change impacts on Warwick District Council operations and services.
- An Adaptation Action Plan which sets out a series of measures to be delivered by Warwick District Council to help build resilience to climate change.

2. Warwick District Climate Change Projections

The changes in climate that we are already experiencing are projected to continue and intensify. In the second half of the century, the amount of change that occurs will depend strongly on how successful we are in reducing greenhouse gas emissions globally.

This section provides an overview of the projected changes in climate we may experience in Warwick District. Table 1 shows climate projections for Warwick District taken from the UK Met Office UKCP18 data and based on a Representative Concentration Pathway (RCP) of 6.0 at the 50th percentile (median estimate). Results have been averaged and as such do not represent possible extreme conditions. The RCP 6.0 scenario is a medium emissions scenario where emissions peak around 2080, then start to decline. Under RCP 6.0 global mean surface temperature is expected to increase by 2.8°C by 2100 (compared to pre-industrial levels). The selection of RCP 6.0, rather than a lower emissions scenario, ensures that adaptation plans are conservative and consider the more severe risks of climate change that would result if global climate action is not sufficient to reduce emissions against the baseline.

	2030s	2050s	2070s	2090s	
Mean Annual Temperature	+0.8°C	+1.2°C	+1.9°C	+2.9°C	↑
Mean Summer Temperature	+1.1°C	+1.6°C	+2.6°C	+4.0°C	↑
Mean Winter Temperature	+0.7°C	+1.1°C	+1.6°C	+2.4°C	↑
Mean Summer Precipitation	-10%	-16%	-23%	-34%	↓
Mean Winter Precipitation	+7%	+8%	+12%	+17%	↑

Table 1: UK Met Office UKCP18 climate projections for a 25km grid square covering most of Warwick District using RCP 6.0 at the 50th percentile. Results are calculated as change from the baseline period: 1981-2000. Summer: June, July and August. Winter: December, January and February. Precipitation is relative change (%) in mm per day.

Temperature

Met Office projections show that an increase in global average temperature is now inevitable. They also show that extreme temperature events are likely to increase in the future. In Warwick District, annual temperatures are expected to rise by 1.2°C by the 2050s and 2.9°C by the end of the century from a 1981-2000 baseline. Summer temperatures are expected to rise by a slightly greater extent compared to winter temperatures, heightening the concerns around this greater risk of heatwave prevalence.

High temperatures and heatwaves can have a range of impacts including health and mortality, increased transmission of food and water borne diseases, reduced air quality, reduced water quality, increased risk of accidents such as drowning, potential disruption to infrastructure (power supply, water supply, transport routes, etc.), damage to the natural environment, greater risk of wildfire, and impacts on agriculture leading to potential issues with food supply.

The impacts of high temperatures and heatwaves on the health and wellbeing of communities are of particular concern. During the high temperatures and heatwaves of Summer 2022, over 3,000 excess deaths were recorded in England and Wales. The July 2022 heatwave caused the Met Office to issue its first ever red weather warning for extreme heat, and a level 4 health alert. The impacts of high temperatures can be felt disproportionately by vulnerable people (such as low-income families/communities and the elderly) and risks are higher in urban areas as a result of the urban heat island effect.

Rainfall

Met Office projections for future rainfall in Warwick District show seasonal differences. In winter, rainfall is expected to increase by approximately 8% by the 2050s and 17% by the end of the century from a 1981-2000 baseline. Conversely, summer rainfall is expected to decrease by approximately 16% by the 2050s and 34% by the end of the century. Furthermore, the intensity of rainfall is projected to increase, so that despite summer becoming drier overall, when it does rain the rainfall will be more intense.

Periods of water scarcity are projected to become more prevalent under these scenarios, and the risk of flooding is expected to increase.

Under the Flood and Water Management Act 2010, County Councils are designated as Lead Local Flood Authorities. Therefore, Warwickshire County Council is the strategic leader for flood risk management within Warwickshire related to surface water, groundwater and ordinary watercourses. The Environment Agency has responsibility for strategic reduction of flood risk from main rivers. [Warwickshire County Council's Local Flood Risk Management Strategy](#) sets out how flooding will be managed in the local area.

The role of Warwick District Council in preventing and responding to flooding lies in three main areas; ensuring development is delivered in a manner which does not cause flooding impacts to worsen, working with partner organisations to deliver habitat enhancements which act as natural flood management measures, and to provide emergency response during periods of flooding.

High winds and storms

High winds present a hazard to transport, infrastructure, buildings, agriculture and people. Notable storms in Warwick District include Winter 2013 (the stormiest winter on record for 143 years), and Storms Eunice and Franklin in February 2022. In addition, since 2019 there have also been an average of 27 thunderstorm warnings issued in Warwickshire each year. There is no clear evidence for increased storminess in the UK based on analysis of long-term data sets, however the CCRA3 recognises that future winter weather may be dominated by more storms which may bring higher incidence of strong winds.

3. How Climate Change Could Impact Council Operations and Services

The following table provides an overview of potential climate change impacts on Warwick District Council operations and services.

Service Area	Key Impacts
Council Assets and Housing	<p>Suitability of Council housing, particularly sheltered housing schemes and tower blocks, to provide comfortable living environments in the longer term.</p> <p>Damage to Council buildings due to heat, excess rainfall and storms.</p> <p>Displacement and rehoming of residents/tenants.</p> <p>Increased risk from trees on Council land (tree fall or branch drop).</p>
Economy and Events	<p>Cancellation of events due to inaccessible event sites, risk of ill health or risk to life, grass fire risk, etc.</p> <p>Impacts on local economy including tourism, town centres, high streets, agriculture, etc.</p>
Health and Community Protection	<p>Air quality - potentially exacerbated by extreme weather - affecting public health.</p> <p>Increased anti-social behaviour and incidence of potentially dangerous open water swimming during hot weather.</p> <p>Impacts on quality of private water supplies - levels of contamination and potential for increased water-bourne diseases and pests.</p> <p>Risk to food quality and safety – food-bourne diseases, safe storage of food, etc.</p> <p>Increased support for vulnerable communities, groups or individuals (e.g. flood risk, power failures, drought, etc.)</p>
Parks and Open spaces	<p>Increased incidence of grass fires.</p> <p>Loss of trees and other green infrastructure.</p> <p>Increased footfall putting pressure on natural environment.</p> <p>Managing increased incidence of pests and invasive species.</p> <p>Increased management of blue infrastructure (e.g. rivers, streams, sustainable urban drainage systems (SuDs), etc.) to ensure function and quality.</p>
Sports and Leisure	<p>Suitability of sports pitches/facilities following extreme weather leading to cancellation of sporting events.</p> <p>Continued provision of paddling pools in parks.</p> <p>Continued provision of bowling greens to meet the required standard for national events.</p>
Corporate	<p>Suitability of office buildings to provide a comfortable working environment in the longer term.</p> <p>Loss of productivity due to overheating, flooding, etc.</p> <p>Disruption to services.</p> <p>Increased costs such as insurance for buildings.</p> <p>Increased frequency of emergency response to severe weather events e.g. flooding, storms, etc. – resource and cost implications.</p> <p>Stronger requirement for business continuity arrangements to ensure continuation of vital and/or statutory services.</p>

4. Adaptation Action Plan

This section sets out a series of actions for implementation by Warwick District Council to help our natural environment, people, buildings and businesses prepare for the impacts of climate change. As described in the introduction, the action plan is primarily a document for Warwick District Council to use, focusing on actions it can influence or has direct control over. However, some of the actions also look to support partners to help achieve wider climate change adaptation across Warwick District.

The actions in this plan have been put together based on the risks and actions identified in local and national climate change adaptation plans, along with engagement with service managers across Warwick District Council and some external stakeholders.

The actions fall under the following themes:

Theme 1: Mainstreaming climate resilience into Council operations/services

Theme 2: Natural environment

Theme 3: Health, communities and the built environment

Theme 4: Supporting the local economy

Theme 1: Mainstreaming climate resilience into council operations/services

Action	Lead Service Area/Officer	Supporting Service Area/s	Timescales
Develop and roll out a climate adaptation training programme for all members of staff and Councillors.	Climate Change	HR	2024/25
Warwick District Council Health and Safety Committee to provide guidance on adaptive work processes to minimise health risks to the workforce during extreme weather events, including contractors. For example, changes to work patterns, provision of PPE, measures for creating a comfortable working environment, etc. Guidance to be disseminated to all Warwick District Council staff and Contract Managers to discuss with external contractors.	Health and Safety Committee	All	2024/25

Build sufficient flexibility into external contracts, at the point of contract relet or as part of the procurement of new contracts, to assist with emergency response and clean-up operations due to extreme weather events (e.g. clean-up of debris after flooding, tree clearance after storms, etc.).	Assets and Neighbourhood	Procurement	Upon contract relet or procurement of new contracts
Build on the work done with the 2023/24 Service Area Plans and Risk Registers to ensure that climate change risks are embedded into the next iteration of plans in 2025/2026 to mitigate climate change impacts on Warwick District Council service delivery.	All Heads of Service	Climate Change Adaptation Officer	2025/26
Review Warwick District Council Business Continuity Plans to ensure that climate change risks are embedded and potential impacts on service delivery are mitigated.	All Heads of Service	Climate Change Adaptation Officer	2024/25
Mainstream climate change resilience into Warwick District Council project planning and prioritisation processes – consider introducing a requirement to risk assess the impacts of future climate change at the project design stage to enable resilience measures to be integrated into the project.	Climate Change	All	2024/25
Further develop communications systems to alert the public to any impacts on Warwick District Council service delivery due to extreme weather events.	Climate Change Adaptation Officer	Media Team	2024/25
Continue to work with the Local Resilience Forum and Coventry, Solihull and Warwickshire (CSW) Resilience to ensure that emergency response planning and testing incorporates climate change potential impacts.	Emergency Planning	Climate Change Adaptation Officer	2024 (and ongoing)
Increase public awareness around Warwick District Council’s role in responding to climate-based emergencies.	Emergency Planning	Climate Change Adaptation Officer and Media Team	2024 (and ongoing)

Theme 2: Natural Environment

Action	Lead Service Area/Officer	Supporting Service Area/s	Timescales
Water			
Explore ways to increase natural flood mitigation and water storage in Warwick District Council parks and open spaces (e.g. rain gardens, swales, scrapes, ditches, etc.).	Green Spaces	Climate Change Adaptation Officer	2024-2026 (in line with Green Space Strategy review)
Include more stringent requirements on the provision of Sustainable Urban Drainage Systems (SuDs) in new developments as part of the local planning process, to include a requirement for applicants to provide full structural and maintenance plans and a completion certificate for compliance against construction plans to ensure appropriate future maintenance by Warwick District Council (where adopted).	Green Spaces and Assets	Planning and Climate Change Adaptation Officer	2024-2027 (in line with South Warwickshire Local Plan timescales)
Ensure all existing and new Sustainable Urban Drainage Systems (SuDs) under Warwick District Council management, including Cubbington Flood Alleviation Scheme, are subject to regular monitoring and maintenance procedures to ensure continued, long-term effectiveness. Ensure sufficient budget, expertise and resources are in place to achieve this.	Green Spaces and Assets	Planning and Climate Change Adaptation Officer	2024 (and ongoing)
Review the current practices of the local planning system to ensure that planning decisions adhere to the National Planning and Policy Framework (NPPF), which states that new developments avoid flood risk areas in accordance with the sequential test in the NPPF and inappropriate development is directed away from areas of existing or future flood risk.	Climate Change Adaptation Officer	Planning	2024
Land			
Ensure that a sufficient inspection regime is in place for trees on Warwick District Council land to minimise risks associated with storms, heatwaves, drought and the spread of disease.	Green Spaces, Housing and Assets		Start 2023/24 and then ongoing

Use the local planning process to safeguard areas in Warwick District with high carbon sequestration value (existing and/or potential) from development. Require developers to follow the hierarchy of avoid, mitigate, compensate to help protect carbon sequestration. Consider the introduction of requirements in the South Warwickshire Local Plan to mitigate loss on site using nature-based solutions or compensate for loss off site through local nature markets.	Planning	Climate Change Adaptation Officer	2024-2027 (in line with South Warwickshire Local Plan timescales)
Further develop a process for mitigating wildfire in our parks and open spaces in line with a national Wildfire Strategy and Action Plan due to be developed as part of commitments made in the National Adaptation Programme (NAP 3). Provide signage and guidance at sites most prone to wildfire to encourage users not to exacerbate the risk. Consider a formal ban (permanent or seasonal) on BBQs and campfires and enforcement through Public Space Protection Orders.	Community Safety	Green Spaces and Climate Change Adaptation Officer	2024/25
Review the Council's grounds maintenance practices and consider changes that support climate change adaptation in terms of flood risk reduction and resilience, soil health, drought resilience, water conservation, carbon sequestration and storage, etc. along with continued service provision (e.g. sports pitches, bowling greens, etc.).	Contract Services and Green Spaces	Climate Change Adaptation Officer	In line with Biodiversity Action Programme
Embed climate adaptation into new or revised Council green space strategies and management plans, ensuring that resilience in terms of users and biodiversity is considered.	Green Spaces	Contract Services and Climate Change Adaptation Officer	2024-2026 (in line with Green Space Strategy review)
Support local food production, including allotments. Enhance policies in the Local Plan to ensure allotments are prioritised as part of green infrastructure. Consider ways to increase food production in our parks and open spaces (e.g. fruit bushes, community orchards, etc.).	Planning and Green Spaces	Climate Change Adaptation Officer	2024-2027 (in line with South Warwickshire Local Plan timescales)
Biodiversity			
Ensure climate adaptation is a key consideration in the Warwick District Biodiversity Action Programme and reporting requirements under the new statutory Biodiversity Duty effective from January 2024.	Climate Change Adaptation Officer	Green Spaces and Planning	2023/24

Support the development of Warwickshire’s Local Nature Recovery Strategy, ensuring that climate adaptation is a key consideration.	Climate Change Adaptation Officer	Green Spaces and Planning	2024/25
Support the development of a Warwickshire Environmental Net Gain Policy and consider its implementation in Warwick District through the Local Plan, ensuring that climate adaptation is a key consideration.	Climate Change Adaptation Officer	Green Spaces and Planning	2024-2027 (in line with South Warwickshire Local Plan timescales)
Ensure climate adaptation is a key consideration in the delivery of Biodiversity Net Gain and capitalise on opportunities for nature-based solutions to provide benefits for climate change mitigation and adaptation.	Climate Change Adaptation Officer	Green Spaces, Planning and Programme Team	2024 (and ongoing)
Support the development of a Tree and Woodland Management Strategy for Warwickshire, ensuring that climate adaptation is a key consideration (e.g. resilience to pests and diseases, appropriate species selection, etc.). Support implementation of the strategy in Warwick District or revise as necessary into a local strategy for Warwick District to ensure appropriate protection and management of these important natural assets.	Programme Team	Green Spaces and Climate Change Adaptation Officer	2024/25
Review the ‘Trees for our Future’ project objectives to ensure that future tree planting proposals contribute to climate adaptation objectives (e.g. reducing flood risk, urban cooling, air quality improvements, habitat connectivity, carbon sequestration, rewilding, etc.) and are consistent with the principal of planting the ‘right tree in the right place’.	Programme Team	Green Spaces and Climate Change Adaptation Officer	2024/25

Theme 3: Health, communities and the built environment

Action	Lead Service Area/Officer	Supporting Service Area/s	Timescales
Built Environment			
Develop a Supplementary Planning Document (SPD) on climate change adaptation to support policies in the Local Plan and ensure that new developments (residential, commercial and industrial) in the district are designed to be resilient and minimise negative impacts on climate change.	Climate Change Adaptation Officer	Planning	2024
Consider the inclusion of water efficiency measures in the South Warwickshire Local Plan that go beyond national Building Regulation requirements.	Planning	Climate Change Adaptation Officer	2024-2027 (in line with South Warwickshire Local Plan timescales)
All newly built Warwick District Council homes will include climate adaptation measures, in line with local planning policies.	Planning	Housing	2024 (and ongoing)
All Warwick District Council owned homes will comply with any new requirements of the Decent Homes Standard (currently under review) to ensure comfortable and healthy living conditions for residents/tenants.	Housing and Assets		2024 (and ongoing)
Identify opportunities for incorporating climate adaptation measures into refurbishment programmes for Warwick District Council corporate and commercial properties.	Assets		Upon lease renewal or inclusion in new leases
Review and update planning policies to integrate climate adaptation into the design and specification for new public open space and green infrastructure assets.	Green Spaces	Planning and Climate Change Adaptation Officer	2024-2027 (in line with South Warwickshire Local Plan timescales)
Deliver best practice urban design for climate adaptation in town centre regeneration projects, to include green and blue infrastructure for temperature regulation, shading, air quality, carbon sequestration and biodiversity benefits.	Place, Arts and Economy	Climate Change Adaptation Officer	2024/25

Ensure that the Council's own estate is subjected to continuous risk assessment of potential damage to on-site infrastructure from extreme weather events, as per requirements identified in service area risk registers.	Assets		2023 (and ongoing)
Maintain appropriate levels of insurance cover for Warwick District Council against climate change related impacts (e.g. flooding, storm damage, etc.). Include sufficient climate change uplifts to any future insurance contracts to ensure adequate cover is in place.	Finance, Audit and Risk		2023 (and ongoing)
Health and Communities			
Support public awareness and preparation for extreme weather to reduce the risk to public health, including high temperatures and heatwaves, cold temperatures, flooding, drought and storms.	Climate Change Adaptation Officer	Media Team and Emergency Planning	2024 (and ongoing)
Support Warwickshire County Council in providing advice, guidance and reactive services to residents affected by flooding.	Emergency Planning	Media Team and Climate Change Adaptation Officer	2024 (and ongoing)
Ensure that service areas are aware of relevant responsibilities/guidance under the UK Health Security Agency (UKHSA) Adverse Weather and Health Plan and support the development of a local Warwickshire Adverse Weather Plan.	Climate Change Adaptation Officer	Media Team and Emergency Planning	2025/26
Continue to review and activate the Severe Weather Emergency Protocol during periods of extreme weather (heat and cold) to ensure homeless people have access to shelter. Consider appropriate triggers to activate the protocol (e.g. UKHSA health alert system, Met Office weather warning system, Public Health triggers, etc.).	Housing	Media Team	2024 (and ongoing)
Continue to monitor air quality that pose a risk to environmental and public health. Share information on social media channels of current and predicted alerts for air pollution. https://uk-air.defra.gov.uk/latest/alerts	Environmental Health	Media Team	2024 (and ongoing)

Continue to risk assess and monitor private water supplies in Warwick District in line with requirements of the Private Water Supplies Regulations 2016 to ensure the continued quality of supply and management of contamination.	Environmental Health		2024 (and ongoing)
Work with Town and Parish Councils to understand how to further support them and their communities in terms of climate resilience.	Climate Change Adaptation Officer		2024/25

Theme 4: Supporting the local economy

Action	Lead Service Area/Officer	Supporting Service Area/s	Timescales
Support the development of a Warwickshire training initiative for businesses on climate risk assessment and action planning.	Climate Change Adaptation Officer	Economic Development and Media Team	2025/26
Produce a communications campaign which seeks to teach local businesses about the importance of climate adaptation, including the dissemination of 'Weathering the Storm: A guide to Saving and Making Money in a Changing Climate.'	Climate Change Adaptation Officer	Economic Development and Media Team	2025/26
Encourage businesses, especially those in flood vulnerable areas, to sign up to the Environment Agency flood warnings service to allow effective preparation for flooding and minimise potential cost impacts.	Climate Change Adaptation Officer	Economic Development and Media Team	2025/26
Ensure climate adaptation and resilience is embedded in the South Warwickshire Economic Strategy and other relevant plans.	Climate Change Adaptation Officer	Economic Development	2023/24
In line with the National Adaptation Programme (NAP 3), use the local planning system to support on-farm water storage and irrigation infrastructure to help maintain food production during times of drought.	Planning	Climate Change Adaptation Officer	2024-2027 (in line with South Warwickshire Local Plan timescales)

<p>Work with the National Farmers Union (NFU), Local Farm Networks and other partners to understand how to further support local farmers in terms of climate resilience.</p>	<p>Climate Change Adaptation Officer</p>	<p>Economic Development and Planning</p>	<p>2024/25</p>
<p>Follow the emerging work of the Food Standards Agency (FSA) in investigating and monitoring risks in food from increased pathogens and other hazards due to climate change, as outlined in the National Adaptation Programme (NAP 3), and provide support in disseminating advice to local businesses on activities to manage risks.</p>	<p>Environmental Health</p>	<p>Climate Change Adaptation Officer</p>	<p>2024/25</p>