

Climate Change Adaptation Route Map for Oxfordshire 2025-2030

Summary

Enhancing resilience for all Oxfordshire communities and businesses to the impacts of climate change, prioritising the most vulnerable

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Front cover image: Flooding on Abingdon Road, Oxford

1 Introduction

SWM has been commissioned and funded by the Future Oxfordshire Partnership (FOP) to develop a Climate Change Adaptation Route Map, aimed at providing a series of actions that should be considered for implementation by decision makers in Oxfordshire, to ensure that the county's natural environment, people, infrastructure, buildings and businesses are prepared for the impacts of climate change. **This document provides a summary of the Route Map.**

The actions included in this summary should be delivered in the financial year 2025/26. In all cases, it should be noted that:

- Many of the actions are currently unfunded, with resourcing yet to be identified.
- Implementation of most of the actions will only take place when resources and/or funding has been secured and agreed by relevant stakeholders.
- Stakeholders have not yet committed to deliver many of the actions so far, but they will look to incorporate if and when an opportunity arises (or when resources are found).
- Actions are currently high-level and subject to change as understanding and circumstances evolve.

The Route Map is to be delivered by a wide range of Oxfordshire stakeholders and includes a set of actions that can only be implemented collectively and in partnership. It builds on the wider aims of Oxfordshire's adaptation programme, which are as follows:

- Protect the health and wellbeing of Oxfordshire residents, enabling them to build long term resilience to a changing climate.
- Improve the resilience of council services and key stakeholder operations across Oxfordshire to a changing climate.
- Minimise financial cost to the council and Oxfordshire stakeholders from future adverse and extreme weather events.
- Realise added benefit from Oxfordshire's natural environment improvement programmes and support its improved resilience to a changing climate.

The core objective is to ensure that Oxfordshire can better manage, prepare for and respond to severe weather events and an increasing likelihood and severity of these in future.



Flooded field near Witney, January 2024

2 Purpose and background

2.1 Overview

The full Route Map from which this summary is derived, includes 83 adaptation actions that will be implemented by decision makers in Oxfordshire, to ensure that the county's natural environment, people, infrastructure, buildings and businesses are prepared for the impacts of climate change, including greater incidence and severity of flooding, a higher likelihood of water scarcity and more intense and prolonged heatwaves.

This summary extracts those actions that we have allocated as being a **very high and immediate (VH-I) priority** for Oxfordshire (as opposed to Very High, High or Medium priority), and that should be implemented, or implementation commenced, in the financial year 2025/26. Prioritisation is based on the following criteria:

- The urgency of the associated climate risk
- The resource intensity and likely cost-benefit of implementation
- Potential financing options available
- Co-benefits, e.g. supporting Net Zero, biodiversity or health outcomes
- The potential magnitude of the impact in Oxfordshire if no action is taken
- Whether the action builds on existing work and, therefore, could be accelerated
- Whether the action can be implemented quickly with minimal resource
- Whether there is stakeholder expertise on the relevant topic area
- Whether there is national/ policy backing to support implementation

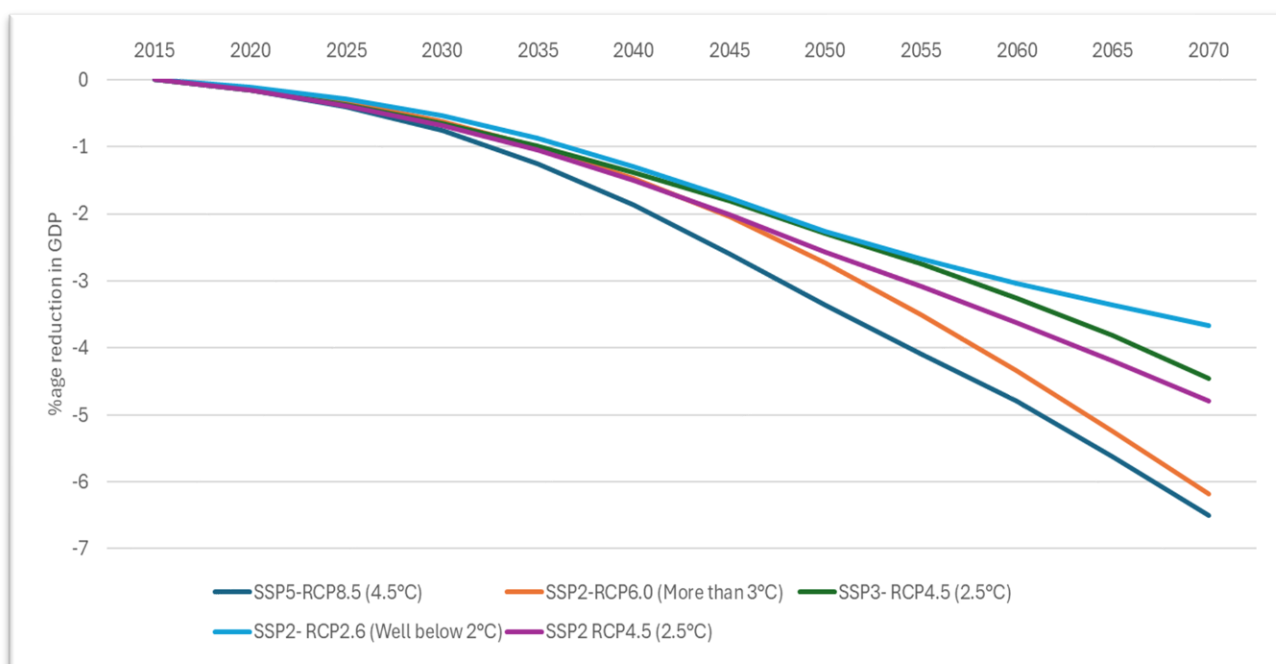
Full details on the background and context that forms the Route Map and this Summary can be found in the full Route Map document. This includes a summary of the [Oxfordshire Climate Vulnerability Assessment](#), and a climate change risk assessment which forms the evidence base for the action plan.

2.2 The economic case for action

An additional evidence base for action comes when looking at the potential economic impact that climate change could have on Oxfordshire. Indicative results show that, when compared to a 2015 baseline, if no adaptation is taken climate change could reduce Oxfordshire's GDP by:

- **0.5% to 0.8% by 2030**
- **2.3% to 3.4% by 2050**
- **3.7% to 6.5% by 2070**

These and other potential scenarios are shown in the graph overleaf. The different lines on the graph show how our global efforts to reduce emissions may affect the overall impact on local GDP; in short, the more we accelerate emissions reductions, the less severe the impact climate change is likely to have on GDP in Oxfordshire. However, even with rapid emissions reductions, GDP is still likely to be reduced if no action is taken.



The figures make a compelling case for action, as they show that climate change will have a negative impact on local economic performance. As such, adapting to the projected climatic changes is fundamental to build Oxfordshire's economic resilience and try to limit the likely negative impacts outlined above.

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3 Priority Actions for 2025/26

This section provides a summary of the actions from the Route Map allocated as being a ‘very high and immediate’ priority and should be implemented, or implementation commenced, within the financial year 2025/26 (i.e. by 31 March 2026). **For more details on each of these actions, and all the other actions identified, please consult the full Route Map document.**

Enabling actions: governance, reporting and monitoring

- Report on progress with delivery of this Route Map and implementation blueprint annually to the FOP and set up a monitoring framework.
 - *This will ensure actions are kept relevant, are being delivered on time and have appropriate success measures identified.*
- Develop a new Oxfordshire-wide Climate Adaptation Working Group under the Zero Carbon Oxfordshire Partnership (ZCOP) structure.
 - *This group will help to make implementation of the actions in the Route Map easier through catalysis and collaboration. District councils not currently part of ZCOP will still be invited to join the adaptation group.*
- Identify financing options and funding sources to enable implementation and integrate into the next budget cycle.
 - *Funding will be required to take forward many of the actions outlined in this Plan; it is, therefore, crucial that a financing strategy is produced to help take forward projects across the county and encourage research of innovative approaches to implementation.*
- Develop a set of adaptation capacity building materials that are specifically targeted at executive officers, Cabinet Members and Councillors across the county.
 - *Senior officer buy-in underpins many actions within this Plan, and they are crucial to enabling local action on climate adaptation. Capacity building materials will help to strengthen this buy-in through engagement.*
- Embed and/or support delivery of climate adaptation into a range of co-dependent strategies and plans being produced by council departments and external partners.
 - *This embedment is crucial to ensure that decision making is factoring the impact climate change could have on various future policies. Without this, many of these strategies and action plans may not be fit for purpose.*
- Each district council should begin to consider developing an adaptation plan.
 - *This will ensure the districts fully assess how climate change could impact on their specific service areas and key operations, which the Route Map does not provide in detail.*

Natural Environment and Assets

- Ensure that climate change adaptation forms a key part of the emerging Local Nature Recovery Strategy (LNRS) for Oxfordshire.
 - *The LNRS is a huge opportunity to enabling nature to become a significant part of the adaptation solution, by ensuring that new nature creation/ enhancement programmes help to create a bigger, better, and more joined up natural environment which will be more resilient to the impacts from climate change.*

- Conduct an analysis of which of Oxfordshire's habitats, species and crops could be most affected by climate change, including the negative impacts of new pests, pathogens or Invasive Non-Native Species (INNS).
 - *Launching local analyses on how this could affect habitats and species in the county would represent a first step to help prepare and protect ecosystems from their most negative consequences, especially high-quality habitats already at risk from climate change.*

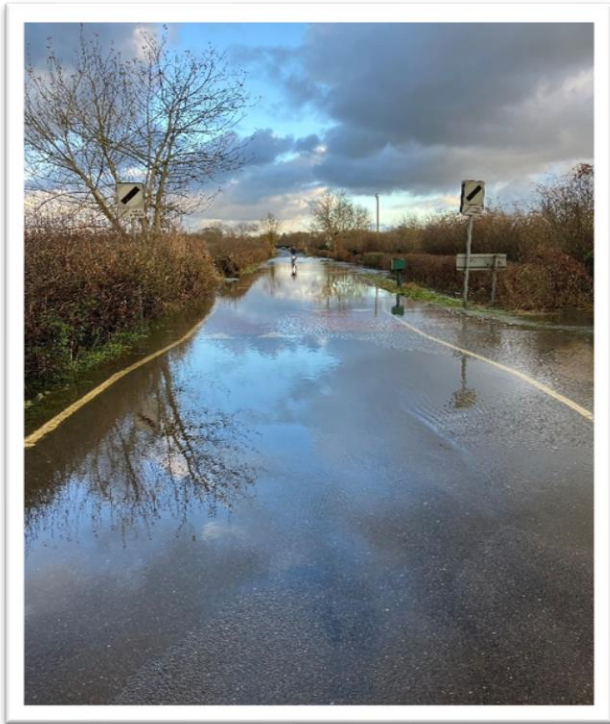
Health, Communities and the Built Environment

- Provide adaptation training for health and social care delivery professionals and senior leaders.
 - *The health and social care sector needs to adapt to the increasing threats it faces from a changing climate; buy-in and understanding can be achieved through the running of capacity building training.*
- Ensure climate risks to health, buildings and infrastructure that affect health and care settings are embedded into corporate risk / business continuity plans.
 - *Embedment into these plans, which all care settings are already required to produce, will ensure climate risks can be considered more routinely and discussed and monitored by risk professionals within the heart of the health and social care sector.*
- Identify and appraise climate adaptation options for the most vulnerable health and care assets.
 - *These assets accommodate some of the county's most vulnerable people. In particular, they are likely to overheat more often in future if they have not been constructed with climate change in mind, meaning that there is a greater likelihood of mortality and extreme discomfort as a consequence of extreme heatwave conditions. An analysis of options to deal with this issue is critical to health and social care delivery continuity.*
- Produce an adaptation plan for the NHS Integrated Care System and Trusts that cover Oxfordshire.
 - *Deriving a plan that can pick up appropriate options to address outcomes from the above analysis, alongside other climate risks, is crucial to ensuring future service continuity.*
- Produce new county-wide climate change adaptation guidance for developers.
 - *Guidance on how to ensure new developments integrate climate adaptation measures should encourage developers to design new homes and commercial premises with a future climate in mind, maximising longevity and performance.*
- Expand on existing work and relationships to empower vulnerable communities to develop climate change adaptation and/or community emergency plans.
 - *Vulnerable communities will need better protection and support to prevent issues such as displacement or health implications as a result of climate change; working with partners to build resilience is fundamental.*

Business and Industry, including Agriculture

- Establish a climate risk and adaptation engagement programme for farmers and land managers.
 - *Adopting new land management practices to help alleviate flood risk, as well as assessing options to deal with the risks climate change poses to farming practices in Oxfordshire, is crucial given that 70% of land in Oxfordshire is agricultural (as of 2024).*

4 Next steps and initial recommendations



Flooding in Wytham © Ariane Crampton

It is recommended that the next steps and principles towards successful implementation of the Route Map are as follows.

Maintain engagement with stakeholders

Oxfordshire CC will quickly build on the extensive engagement that took place with stakeholders to develop the full Route Map, by establishing a new Oxfordshire-wide Climate Adaptation Working Group, fitting into the structure of the new Zero Carbon Oxfordshire Partnership (ZCOP). This will include all the district councils, even if they are not currently part of the ZCOP, along with key stakeholders who are likely key stakeholders who are likely to be chiefly responsible for implementing the actions in this plan. This should launch alongside publication of this Route Map so that it is still fresh in people's minds and, initially, should be used to agree who will lead on each of the VH-I 2025/26 actions.

Integration

Wherever possible, adaptation measures will be integrated into Net Zero and other relevant activities to maximise the impact of the activity whilst minimising resource requirements. This also ensures adaptation actions do not threaten to contradict Net Zero targets, or visa-versa.

Adaptation financing

Identifying financing options will be crucial to the successful implementation of some of these actions. Mapping of these opportunities and lobbying of central Government needs to take place hand-in-hand, to encourage appropriate investment. There also needs to be strategic use of public sector funds to lever in appropriate private sector investment. The [100 Together](#) initiative set up in Oxfordshire and the forthcoming Green Investment Pipeline and Prospectus provides a key mechanism to identify private financing sources that may be suitable for adaptation.

Outcomes and measures of success

Undertaking a cost-benefit analysis of each action will provide some element of quantification and give backing to implementation. In-depth analysis will be needed when embarking on implementation of actions where investment is required. Where undertaking a cost-benefit analysis is not possible, it is still important to consider what the specific outcomes are for each action, in order to make the case for implementation.

Building in flexibility

Despite having an understanding on the likely broad climatic changes expected to occur in Oxfordshire, it is impossible to be specific about exactly what is going to happen when, due to various elements of uncertainty. Not knowing exactly when, and to what extent, we need to take action by makes both implementation of adaptation actions, and making the case for implementation, more challenging.

It will therefore be important to build flexibility into adaptation actions by taking an [adaptation pathways approach](#), which can help to manage the long-term and uncertain nature of climate change impacts. It will allow projects to be scaled up or down depending on how the climate actually changes, and will show what level of adaptation needs to take place against a range of plausible scenarios.

Monitoring and evaluation (M&E)

Developing a process for M&E that outlines how and when actions will be assessed and allows progress against each action to be captured is critical. A first step should be to develop a monitoring system, or integrate adaptation actions into an already established monitoring system, which allows for the capturing of progress against each action. A reporting mechanism will also be established to ensure progress is being communicated to partners and senior leaders.

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