

From: Susan Carey, Cabinet Member for Environment
Barbara Cooper, Corporate Director of Growth, Environment and Transport

To: Environment & Transport Cabinet Committee 18 March 2021

Subject: Development of the Climate Change Risk and Impact Assessment for Kent and Medway, and Adaptation Programme and Implementation Plan

Classification: Unrestricted

Electoral Division: All

Summary: This report presents the findings of the Climate Change Risk and Impact Assessment for Kent and Medway and a proposal for development of the resulting Adaptation Programme and Implementation Plan. It highlights the environmental changes Kent could experience, the potential risks and opportunities to Kent's society, economy and environment of these, and recommendations for adaptation.

Recommendation(s):

The Environment and Transport Cabinet Committee is asked to note the findings of the Climate Change Risk and Impact Assessment and make recommendations to the Cabinet Member for Environment on the proposed Adaptation Programme and Implementation Plan for Kent and Medway.

1. Introduction

- 1.1 The Climate Change Act 2008, which requires local authorities to act to reduce emissions both from their own operations and their geographical area and which legislated a UK target of net-zero carbon emissions by 2050, also requires that a UK Climate Risk Assessment and National Adaptation Programme is developed every five years.
- 1.2 Under the framework of the Kent Environment Strategy (KES), the Kent County Council Sustainable Business and Communities Team has taken forward work to deliver a climate risk assessment and adaptation implementation plan.
- 1.3 With the support of JBA Consultants and after significant research and wide stakeholder engagement, Kent County Council published the results of the climate risk assessment as a three-part Climate Change Risk and Impact Assessment for Kent and Medway in late 2020 (available from <https://www.kent.gov.uk/environment-waste-and-planning/climate-change/kents-changing-climate/climate-change-risk-and-impact-assessment>).
- 1.4 This Assessment highlights the environmental changes Kent could experience over the next 20-80 years, the potential risks and opportunities these changes pose to Kent's society, economy and environment, and recommendations for adaptation

action. This report forms the evidence base for progressing an Adaptation Programme and Implementation Plan.

- 1.5 Improving our ability to respond to projected climatic shifts is a key element of successfully adapting to the challenges we face. This involves simultaneously improving the resilience to extreme weather events and more gradual adaptation to the longer-term impacts of ongoing climatic changes.

2. Findings from the Climate Change Risk and Impact Assessment

- 2.1 The UK Climate Change Risk Assessment (2017) represents the most up to date and comprehensive evaluation of scientific, technical, social and economic information concerning UK climate change and its potential effects. A key finding of the report is that continued emission of greenhouse gases will cause further warming and long-term changes to the climate system across the country.

- 2.2 In Kent, climate change will likely result in warmer, wetter winters and hotter, drier summers in the future. Extreme weather is expected to become more frequent and intense in a county that is already vulnerable to heavy rainfall, floods, droughts and heatwaves. Very cold winters and snowfall will still occur, though will become less frequent. Sea levels will continue to rise.

- 2.3 In 2018, the MET Office Hadley Centre published the UK Climate Projections 2018 which analyse climate changes at a local level across the UK. Key findings from the UKCP18 data indicate that Kent can expect:

- Hotter summers with an increase in average summer temperature of 2 – 3°C by 2040 and 5 – 6°C by 2080.
- Warmer winters with an increase in average winter temperature of 1 – 2°C by 2040 and 3 – 4°C by 2080.
- Drier summers with a reduction in average precipitation of 20 – 30% by 2040 and 30 – 50% by 2080.
- Wetter winters with an increase in average precipitation of 10 – 20% by 2040 and 20 – 30% by 2080.
- Increases in sea-level rise by up to 0.3m by 2040 and 0.8m by 2080.

- 2.4 Following the methodology of the UK Climate Change Risk Assessment (2017), JBA Associates, with support from KCC and stakeholders across Kent and Medway, developed the Climate Change Risk and Impact Assessment for Kent and Medway (CCRIA). The Assessment has been developed as a county-level version of the UK Climate Change Risk Assessment. The study is pioneering as very few local authorities have conducted climate change risk assessments at this scale. The Climate Change Risk and Impact Assessment describes the changes Kent might face, as well as the potential risks to Kent's communities, economy, and environment.

- 2.5 The Assessment identifies current climate risks, opportunities and adaptation capacity and assigns urgency scores with recommendations reflecting the type of action that will be required in the short-term. As a result, it highlights the priority climate risks affecting Kent today and by the end of the century (Figure 1) and identifies the impacts that climate change will have on the county's key sectors (Agriculture, Natural Environment, Industry, Utilities, People and the Built Environment and Transport).

Figure 1: Priority Risks for Kent and Medway identified in the CCRIA



- 2.6 Some of the most significant impacts of climate change to Kent and Medway will likely include loss or reduction of agricultural land, changes to crops, increased overheating in homes and public buildings, habitat loss, flooding of homes and businesses, disruption on the travel and transportation networks, and more and varied plant and animal disease.
- 2.7 Although climate change presents Kent with many challenges, it is also likely to bring some important benefits which include decreased excess winter mortality among the elderly, reduced energy use to heat buildings during winter, longer growing seasons, opportunities for crop diversification for the agricultural sector, and the potential to boost tourism. Some of Kent's industries are already seeing benefits, such as increasing viticulture across the county and improved conditions for soft fruit production.

3 Progressing the Adaptation Programme and Implementation Plan

3.1 Mitigation and adaptation are complementary strategies for reducing and managing the risks of climate change. Mitigation refers to efforts to reduce or prevent emissions of greenhouse gases limiting the magnitude or the rate of climate change. Adaptation is the process of adjusting our natural environment, society, and economy to cope with current or expected climate change and its effects.

3.2 Local government has a crucial role to play in driving adaptation to climate change, including:

Achieving strategic objectives. Ensuring projects, plans and processes are resilient to climate change strengthens the ability to achieve strategic and regional objectives and over the long-term, helping local authorities achieve a wide range of other plans and ambitions.

Reducing impacts on service demand and delivery. Adapting to climate change allows assets and activities to continue performing in changing environments.

Reducing financial costs. Although individual actions need careful evaluation, many studies show that planned and proactive adaptation works are generally cheaper, and more effective over time, than the costs incurred responding reactively to the impacts as they happen. Local authorities can face significant short-term costs from the impacts of extreme weather. For example, in the aftermath of a flood event, there may be costs for highway and building repairs, temporary accommodation, mental health and social care support, and insurance excesses. Proactive adaptation is a key part of ensuring local authorities continue providing value for money to the taxpayer.

Meeting statutory requirements. Adaptation is a part of statutory requirements and is embedded in legislation relating to planning, flood risk management, public health provision and environmental management.

Delivering co-benefits. Through careful planning, adaptation actions can deliver multiple wider benefits to projects or activities such as improving health and wellbeing, property values, skills and employment, reducing emissions and supporting biodiversity.

- 3.3 It is proposed that the Adaptation Programme and Implementation Plan will focus on Kent's key sectors (agriculture, natural environment, people and the built environment, transport, industry, utilities, and local government) where adaptation needs to be developed. It will provide clarity within each sector on what the Council and its partners will focus on for successful climate adaptation. The programme will also identify cross-cutting issues and actions, while supporting Kent County Council's existing and emerging policies and strategies which contribute towards the delivery of these strategic priorities.
- 3.4 It is proposed that the Adaptation Programme and Implementation Plan should build resilience for projected future climate in a way that minimises financial impacts of climate risk; takes advantage of opportunities from positive impacts; is flexible to uncertainties and changing circumstances; and provides wider co-benefits. In this way, no matter what the future looks like, the county will be more resilient for our communities, our economy, and our natural environment.
- 3.5 The Adaptation Programme should seek to define and establish a pathway to resilience in line with county net-zero targets of 2050. The Implementation Plan should determine short, medium and long-term actions to reach this goal.
- 3.6 To be successful, the Adaptation Programme and Implementation Plan will need the support and collaboration of multiple organisations across the county. It will need to be integrated across different sectors and scales, with clearly identified actions to be taken by Kent County Council and our partners. The programme and plan will be developed through a participatory process and collaboration among stakeholders to set out clearly defined roles, responsibilities, and achievable objectives.

4. Financial Implications

- 4.1 The Adaptation Programme and Implementation Plan will be developed within the budget of the Sustainable Business and Communities team and from the Interreg VA 2 Seas Programme's STAR2CS Project, which is led by Kent County Council.
- 4.2 Specific adaptation measures that may be recommended in the final plan will need to be considered on a case-by-case basis in terms of how they could be funded.

The plan will focus on mainstreaming adaptation and resilience into business as usual, while external funding sources are sought to optimize outcomes where required.

5. Policy Framework

- 5.1 The Adaptation Programme and Implementation Plan are directly linked to Kent Environment Strategy and its Implementation Plan; and informs the Economic COVID-19 Recovery Plan -Renewal and Resilience. It is also relevant to the Kent and Medway Growth and Infrastructure Framework, Local Transport Plan 4 (and will inform Local Transport Plan 5), the extended Health and Wellbeing Strategy and Kent's Public Health Outcomes.
- 5.2 The Adaptation Programme and Implementation Plan supports the following priority actions of Setting the Course – Kent County Council's Interim Strategic Plan: Work with our partners to deliver essential support for local businesses; Champion the rural and green economy; and deliver net-zero for Kent by 2050 and promote climate resilience.

6. Governance

- 6.1 The Adaptation Programme and Implementation Plan forms part of the Kent Environment Strategy and its Implementation Plan. It will be overseen and monitored internally by the Kent County Council Environment Board and externally by the Kent Environment Group.
- 6.2 Coordination of the delivery and implementation of the Adaptation Programme and Implementation Plan falls within the remit of the existing Sustainable Business and Communities team.

7. Equalities Impact Assessment

- 7.1 An Equalities Impact Assessment has been undertaken on Climate Change Risk and Impact Assessment for Kent and Medway and the developing Adaptation Programme and Implementation Plan. Individual projects and programmes agreed as part of the final programme will receive their own Equalities Impact Assessment.
- 7.2 No significant negative impacts were identified for the Adaptation Programme. Young, disabled, and older people are more vulnerable to the impacts of climate change and they are likely to benefit more from this project than less vulnerable groups.

8. General Data Protection Regulation Considerations

- 8.1 A Data Protection Impact Assessment is not needed as the CCRIA and the Adaptation Programme and Implementation Plan do not require processing of personal data.

9. Conclusion

- 9.1 Climate change is already affecting Kent and Medway. Therefore, understanding the potential future impacts of warmer, wetter winters and hotter, drier summers is crucial for future prosperity, environmental quality, and health and well-being of Kent communities. The impacts of climate change are likely to be felt acutely in Kent with its long, strategically important coastline, large number of properties at risk of flooding

and warm summers compared with the rest of the United Kingdom. It is imperative that the impacts of climate change are considered alongside other drivers of change including economic fluctuations, population growth and demographic shifts.

- 9.2 Kent County Council has an important role to play in ensuring effective adaptation across all areas identified in the Climate Change Risk and Impact Assessment for Kent and Medway. This may involve providing local leadership, adapting the services it delivers, and/or through working collaboratively with others across the county to achieve broader goals.
- 9.3 Through the Adaptation Programme and Implementation Plan, KCC and its partners will demonstrate leadership and aim to embed adaptation into key policy areas to effectively enable our communities, our economy, and our natural environment to be resilient to climate change. This approach will require a broad range of measures (from short-term to long-term) and support changes across policies, strategies, and investment decisions.
- 9.4 Through Kent County Council's actions and those of our partners, we will play a leading role in addressing climate change and ensuring future generations can take advantage of our thriving county.

10. Next Steps and Timescales

- 10.1 Subject to comments from Environment and Transport Cabinet Committee, the Adaptation Programme and Implementation Plan will be developed over the next six months and will return to the Environmental and Transport Cabinet Committee for endorsement in Autumn 2021 prior to wider consultation.

11. Recommendation(s)

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The Environment and Transport Cabinet Committee is asked to note the findings of the Climate Change Risk and Impact Assessment and make recommendations to the Cabinet Member for Environment on the proposed Adaptation Programme and Implementation Plan for Kent and Medway.

12. Background Documents

- Kent Environment Strategy – www.kent.gov.uk/environmentstrategy
- Climate Risk and Impact Assessment for Kent and Medway – <https://www.kent.gov.uk/environment-waste-and-planning/climate-change/kents-changing-climate/climate-change-risk-and-impact-assessment>

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