

18 June 2009

The Chief Planning Officer,
Local Planning Authorities in England

Regional Planning Bodies
cc Regional Development Agencies

UK CLIMATE PROJECTIONS 2009

I am writing to advise you of the publication of the UK Climate Projections 2009 and to set out their implications for the planning process.

Overview

The new UK Climate Projections 2009 (UKCP09), published today, describe how the climate of the UK might change. They are available via the adaptation pages of Defra's website.

The projections are provided as aggregated results for administrative regions (for example, South East England) and river catchments (for example, for the Thames), as well as customisable data for 25 km grid squares.

The projections represent the climate for one of seven 30-year time-slices, moving forwards in time with an increment of 10-years (i.e. 2010-2039, 2020-2049, etc until 2070-2099). Within each 30-year time period, projections are given for changes in monthly, seasonal and annual averages (for example, average monthly rainfall). The future changes are relative to a baseline period of 1961-1990.

Projections are given for one of three future emissions scenarios; high, medium and low. These are based on the three greenhouse gas emission scenarios developed by the International Panel on Climate change. The projections also, for the first time, provide a range of data based on an assessment of the probability of outcome.

Alongside the projections, Defra have published a report on the Government's Climate Change Adaptation Programme. This provides information about the projections and an update of existing and planned activity in the programme.

Advice on handling the projections is provided below. This explains that publication of the new projections in themselves should not require regional and local planning to be slowed down or decisions on planning applications to be deferred.

What is available from UKCP09

The Defra website and associated links provide step-by-step guidance on how to access the projections data and an explanation of the underlying principles of the approach taken in preparing them.

Specifically, you can access:

- a summary of the key findings - that is the data which shows how the climate could change;
- headline messages - which provide information on the likely consequences for the economy, society and the natural environment based on an initial review of the data;
- pre-prepared maps and graphs of climate change impacts across a range of timeslices, emissions scenarios and probability levels;
- United Kingdom Climate Impacts Programme (UKCIP) reports which explore the science behind the projections and a detailed description of the methodology for a technical audience;
- customisable output via a web-based user interface, which makes it possible for users to construct their own projections by choosing an emissions scenario, time period and probability level.

Given the range of data that will be available, much of the initial published material by Government and UKCIP will focus on headline findings based on the medium emissions, and central estimate of probability. This is a useful starting point for any organisation in understanding how our climate is projected to change over the century. It does not imply that this is the 'most likely' outcome. The range of data which is appropriate will depend on particular circumstances and a number of locally specific factors. Users will need to become familiar with the projections.

To support this, and in addition to the technical guidance available via their website, Defra are funding a 9 month programme of workshops and training. This is being delivered in part by UKCIP. The programme will help users understand how to get the right information out of the projections and how to use them appropriately. We are keen that users have this knowledge to ensure a consistent approach to using the projections. There will be a series of regional events and it will be important to take advantage of these.

UKCP09 and probability

The major focus of Defra's programme will be to examine the difference between the projections published in 2002 by the UK Climate Impacts Programme (UKCIP02) and the new UKCP09 projections in terms of 'probability'. This is because UKCIP02 gave a single 'best guess' projection based on an average of three runs of the Met Office Hadley Centre model, whereas UKCP09 provide a much wider range of

projections based on many more runs of the Met Office Hadley Centre model, combined with single runs from other IPCC models.

The projections are assigned probabilities to provide a measure of the estimated uncertainty associated with them. Probability in UKCP09 does not mean, however, that an event is x% likely to happen. The probabilities represent the strength of the evidence for a particular future climate based on the current evidence about how the climate system works, how well we can currently model climate, and the effects of natural variability. This evidence may change in future, and so too may the probabilities.

Handling the projections

The UKCP09 projections provide a powerful set of tools to help in our understanding of the complex changes we can anticipate in our climate. Whilst there is a range of projections of future climate for any given variable, based on different emissions scenarios and probability levels, around the 50% probability point on the central emissions scenario the data are broadly similar to the UKCIP02 projections.

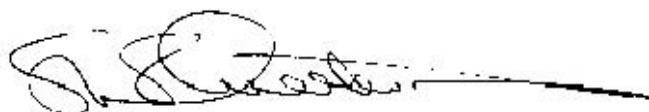
Therefore, the assumptions on changes in climate that you have been working from remain reasonable. Exceptionally, there may be circumstances involving particularly vulnerable locations or sensitive development where this may not be the case but otherwise the general expectation holds true.

Existing derived material on impacts, including on flooding prepared by Defra and the Environment Agency, remains current until such time as updated.

As such, publication of the new projections in themselves should not require regional and local plan-making to be slowed down or decisions on planning applications to be deferred. You will of course want to appreciate the full possibilities offered by UKCP09 in reviewing and updating plans.

Where you are in any doubt about keeping to agreed timetables, you should liaise with the relevant Government Office.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Steve Quartermain', with a long horizontal line extending to the right.

Steve Quartermain
Chief Planner