

# Using ‘Flood risk assessments: climate change allowances’ following publication of new climate projections in UKCP18

## Who are these messages for?

These messages are for local planning authorities and developers preparing Strategic Flood Risk Assessments (SFRAs) and site specific flood risk assessments (FRAs).

## How to use these messages

These messages advise developers who need to prepare site specific flood risk assessments and all local planning authorities how to use ‘[Flood risk assessments: climate change allowances](#)’ (published 2016) to account for the impact of climate change on flood risk now UKCP18 has been published.

## Main messages

- [UKCP18](#) was published on 26th November 2018.
- UKCP18 is the official source of information on how the climate of the UK may change over the rest of this century. The UKCP18 projections replace the UKCP09 projections.
- The allowances in ‘[Flood risk assessments: climate change allowances](#)’ (published Feb 2016) are still the best national representation of how climate change is likely to affect flood risk for:
  - peak river flow
  - peak rainfall intensity
- Research that is due to be published in 2019 may result in changes to these allowances<sup>1</sup>. We will provide customers with more information regarding the need to update peak river flow and peak rainfall intensity allowances in due course.
- The climate change allowances for sea level rise in ‘[Flood risk assessments: climate change allowances](#)’ will be updated and published as early as possible in 2019. Until then, it is reasonable to continue to use the sea level rise allowances in ‘Flood risk assessments: climate change allowances’ (published in 2016) for planning decision making, because the allowances that have been used to date represent the high end of the range of sea level rise projected by UKCP18.

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<sup>1</sup> High resolution mapping providing peak river flow allowances at 1km grid resolution due to be published Spring 2019. We do not expect the peak river flow allowances provided at a regional scale in ‘Flood risk assessments: climate change allowances’ to change as a result of this information, however, planners and developers may need to take account of this information where it shows a significant difference to the regional allowances. High resolution (daily and sub daily) rainfall projections is due to be published in the second half of 2019. These are used to understand the impact of climate change on peak rainfall. Following this, the peak rainfall allowances in ‘Flood risk assessments: climate change allowances’ may need to be updated, but this will not be until late 2019 at the earliest.

- However, in exceptional cases where developments are very sensitive to flood risk and have a lifetime of at least 100 years<sup>2</sup>, we recommend you assess the impact of both the current allowance in '[Flood risk assessments: climate change allowances](#)' and the 95th percentile of UKCP18 'RCP 8.5' scenario (high emissions scenario) **standard method** sea level rise projections of UKCP18, and plan according to this assessed risk. You will need to calculate sea level rise allowances beyond 2100 by extrapolating the UKCP18 dataset. The Environment Agency will check your extrapolation methodology and provide advice.
- UKCP18 provides sea level rise projections for 2100 – 2300. The update of '[Flood risk assessments: climate change allowances](#)' will include advice on using these projections. In the meantime, for development with a longer than 100 year lifetime e.g. large urban extensions, new settlements, major infrastructure, you should contact your local the Environment Agency office for advice on how to calculate such allowances.
- Where it is appropriate to use the sea level rise information in UKCP18 as described in this briefing note, planning decisions should do so from now onwards, in order to ensure planning decisions are in line with policies in the National Planning Policy Framework. However, where local plans or development proposals and associated flood risk assessments are well advanced, it will usually be acceptable make decisions based on the allowances and advice in '[Flood risk assessments: climate change allowances](#)' (published Feb 2016) in the following circumstances:
  - local plan has been submitted for examination (before or on the day UKCP18 is published); or
  - development proposals are well advanced or where a valid planning application has already been submitted to the local planning authority (before or on the day UKCP18 is published).
- When the climate change allowances are updated, the supporting guidance will be updated at the same time to address user feedback collated since Feb 2016.
- Once '[Flood risk assessments: climate change allowances](#)' has been updated, over time we will update our flood risk modelling to reflect the revised climate change projections. This modelling work is principally done to inform our flood risk management activities, but we will continue to share this work with planners (for SFRAs) and developers (for site-specific FRAs) when it becomes available. Where the modelling needed by planners and developers has not yet been undertaken, we may be able to work together to do this work more quickly and to share the costs. Where this is not possible, the onus will be on planners and developers to undertake the necessary work at their own cost. Contact your local Environment Agency office to find out when they plan to update their flood risk modelling and to discuss working together.

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<sup>2</sup> Such as infrastructure projects or developments that significantly change existing settlement patterns including urban extensions and new settlements