

Briefing note for the consideration of climate change resilience and adaptation in EIA for projects in the South East Region

The consideration of climate change in the EIA will follow the IEMA guidance titled '*Environmental Impact Assessment Guide to: Climate Change Resilience and Adaptation*' (2020).

Resilience of the proposals to climate change impacts will be reported in the description of the proposal, by summarising how its design adaptations take account of future climate changes, and where relevant, examples of where this was a contributing factor in the analysis of alternatives.

The impact of the Proposed Development on climate change will also be addressed in the Climate Change Chapter of the ES.

The potential effect of climate change on the effects predicted in each technical assessment will be considered for future scenarios. This will be undertaken by each assessor and presented within a 'climate change' effects section in the technical chapter. It will refer to the UKCP18 projections to conduct a high-level assessment for the 2020s (short term); the 2050s (medium term); and the 2080s (long-term). In accordance with the IEMA Guidance, the highest emissions scenario will be used for the future scenarios 'with climate change'. That is: RCP8.5, 50th percentile, as shown in the table below.

Utilising the climate change projections referenced below, each assessment chapter will qualitatively assess how potential climate change may alter the effects predicted for each receptor. The identified impacts might be exacerbated, they may diminish, or further interaction effects might be identified when considered against the future climate change conditions.

Acknowledging that flood risk assessments include an allowance for future climate change, the water resources ES chapter will not need to complete this additional scenario for the drainage/flood risk aspects. However, climate change should be considered for the effect on water resources in the area in which the proposal is located, i.e., increasing demand in an area where future water supply is predicted to be inadequate.

UK CP18 Climate Change Projections¹

Over land the projected general trends of climate change in the 21st century shows a progressive increase in mean air temperatures during summer and winter, a reduction in the rate of precipitation during the summer months but an increase during the winter months, with a slight reduction in average wind speed in the summer and a small increase during the winter.

UKCP data for the South East using RCP 8.5 (change from baseline 2010)

		Percentile			
Season	Variable	Period	10 th	50 th	90 th
Summer	Mean air temperature °C	2020s	0.4	1.0	1.8
		2050s	1.2	2.6	4.1
		2080s	2.5	5.1	7.7
	Average precipitation rate (%)	2020s	-21.8	-7.5	7.5
		2050s	-48.2	-22.9	1.7
		2080s	-72.6	-38.7	-4.9
	Average wind speed (m/s) at 10m (%)	2020s	-0.1	-0.1	-0.1
		2050s	-0.3	-0.2	-0.1
		2080s	-1.0	-0.5	-0.3
Winter	Mean air temperature °C	2020s	0.0	0.7	1.4
		2050s	0.5	1.7	3.0
		2080s	1.2	3.1	5.2
	Average precipitation rate (%)	2020s	-4.9	6.1	17.8
		2050s	-4.6	11.5	30.1
		2080s	-2.4	23.8	54.4
	Average wind speed (m/s) at 10m (%)	2020s	-0.2	-0.1	0.0
		2050s	-0.1	0.0	0.1
		2080s	-0.1	0.1	0.2
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This data represents the probabilistic climate projections component of the past (observed) and future climate scenario projections data, produced as part of the UK Climate Projections 2018 (UKCP18) project. Data has been produced by the UK Met Office Hadley Centre.					
The data represents anomalies with respect to the baseline period.					

¹ Source: <https://ukclimateprojections-ui.metoffice.gov.uk/products>