
**THREE OAKS RENEWABLE
ENERGY PARK
EXTENSION**

**Environmental
Statement Appendix 4.1: Climate
Projections**

MAY 2026



Appendix 4.1 – Three Oaks Renewable Energy Park Extension Climate Projection

1.1 Introduction

This document summarises the UK Climate Change Projections 2018 (UKCP18) (accessed January 2026) (Met Office 2026) under the RCP8.5 probabilistic land projections for the 25km grid cell within which the Three Oaks Renewable Energy Park Extension site is located (Grid Square 512500, 462500).

1.2 Average Temperature

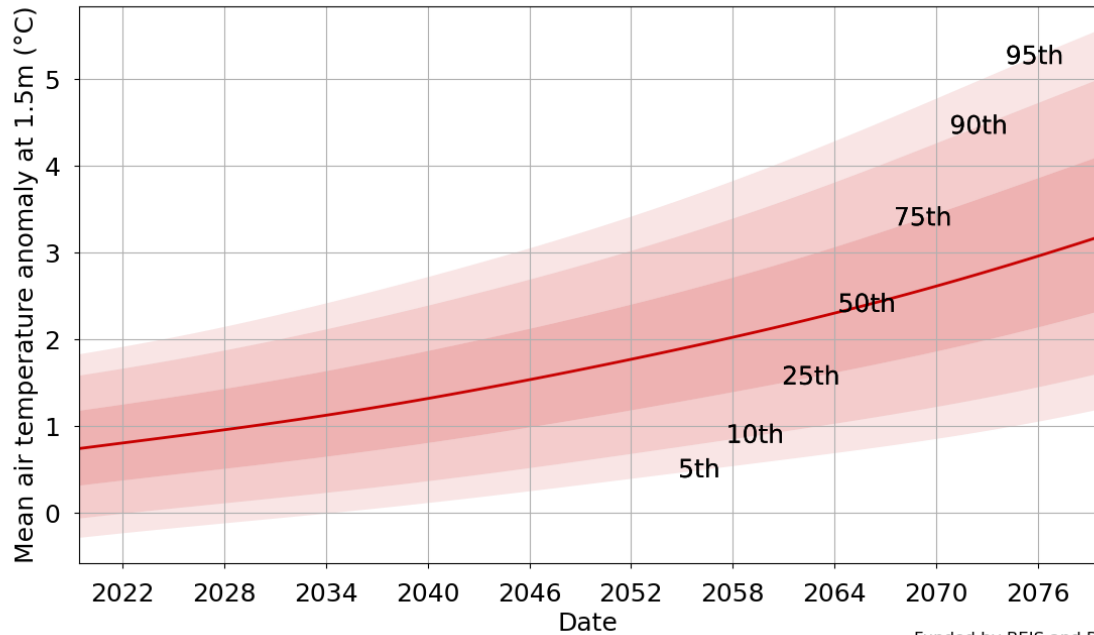
Table 1.1 and Figure 1.1 show the projections for annual average mean air temperature for the 25km grid cell within which the Three Oaks Renewable Energy Park Extension site is located. The projections show a continuous increase in annual average temperature over the lifetime of the Proposed Development and beyond.

Table 1.1 – Annual average mean air temperature anomaly at 1.5m (°C)

Date	Percentile						
	5th	10th	25th	50th	75th	90th	95th
2025	-0.17	0.06	0.45	0.89	1.35	1.78	2.04
2030	-0.07	0.16	0.56	1.02	1.51	1.96	2.25
2035	0.02	0.26	0.68	1.17	1.69	2.18	2.48
2040	0.12	0.38	0.82	1.33	1.88	2.41	2.74
2045	0.24	0.50	0.97	1.51	2.09	2.66	3.01
2050	0.36	0.64	1.13	1.71	2.32	2.93	3.31
2055	0.48	0.78	1.30	1.91	2.57	3.22	3.64
2060	0.60	0.92	1.48	2.13	2.85	3.55	4.00
2065	0.73	1.07	1.67	2.37	3.15	3.91	4.39
2070	0.86	1.24	1.88	2.64	3.47	4.29	4.81
2075	1.03	1.42	2.11	2.92	3.81	4.68	5.22

Figure 1.1 – Annual Average Mean Air Temperature, Grid Square 512500, 462500.

Annual average Mean air temperature anomaly at 1.5m (°C) for years 2019 up to and including 2079, for grid square 512500, 462500, using baseline 1981-2000, showing the 5th, 10th, 25th, 50th, 75th, 90th and 95th percentiles



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1.3 Precipitation

Table 1.2 and 1.2 show the projections for the annual average precipitation rate for the 25km grid cell within which the Three Oaks Renewable Energy Park Extension site is located. The projections show that annual precipitation is likely to remain fairly constant throughout the lifetime of the Proposed Development.

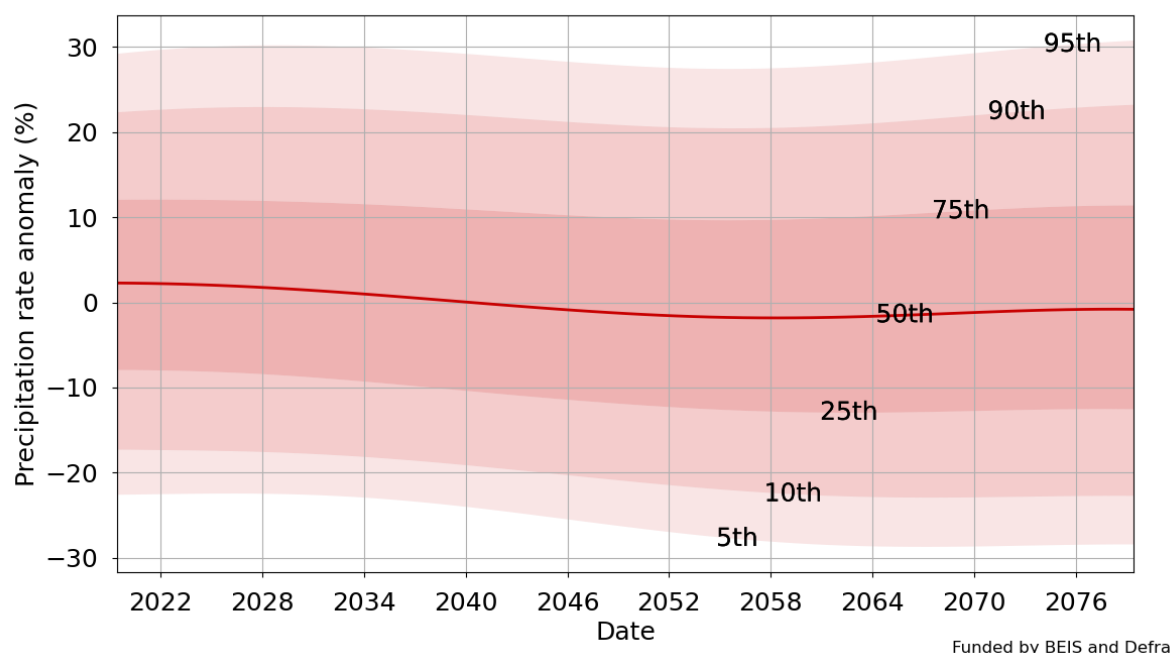
Table 1.2 – Annual Precipitation Rate Anomaly (%)

Date	Percentile						
	5th	10th	25th	50th	75th	90th	95th
2025	-22.47	-17.45	-8.19	1.99	12.02	22.89	30.07
2030	-22.59	-17.76	-8.74	1.47	11.79	22.91	30.17
2035	-23.14	-18.36	-9.55	0.77	11.4	22.56	29.8
2040	-24.11	-19.21	-10.47	-0.03	10.87	21.96	29.14
2045	-25.35	-20.19	-11.35	-0.8	10.29	21.28	28.36
2050	-26.61	-21.18	-12.1	-1.42	9.83	20.7	27.7
2055	-27.69	-22.04	-12.65	-1.77	9.64	20.45	27.42
2060	-28.41	-22.65	-12.93	-1.8	9.82	20.63	27.69
2065	-28.72	-22.92	-12.94	-1.55	10.28	21.23	28.41
2070	-28.68	-22.9	-12.75	-1.16	10.83	22.03	29.35
2075	-28.51	-22.77	-12.57	-0.86	11.26	22.79	30.23

Figure 2.2 – Annual Average Precipitation, Grid Square 512500, 462500.



Annual average Precipitation rate anomaly (%) for years 2019 up to and including 2079, for grid square 512500, 462500, using baseline 1981-2000, showing the 5th, 10th, 25th, 50th, 75th, 90th and 95th percentiles



1.4 Seasonal Changes

Summer temperature

Table 1.3 and Figure 1.3 show the projections for average summer (June, July, August) maximum air temperature for the 25km grid cell within which the Three Oaks Renewable Energy Park Extension site is located. The Projections show an overall increase in maximum summer temperature throughout the lifetime of the Proposed Development and beyond.

Table 1.3 – Average Summer Air Temperature Anomaly at 1.5m (°C)

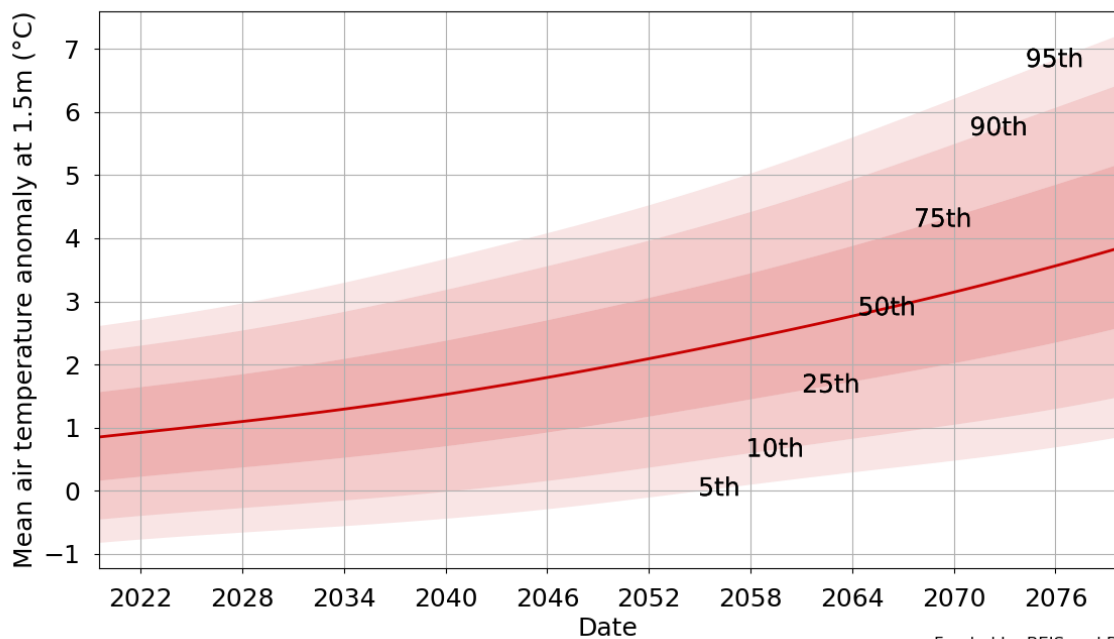
Date	Percentile						
	5th	10th	25th	50th	75th	90th	95th
2025	-0.70	-0.32	0.31	1.03	1.76	2.43	2.85
2030	-0.62	-0.22	0.43	1.18	1.94	2.66	3.10
2035	-0.53	-0.12	0.57	1.35	2.16	2.92	3.39
2040	-0.43	0.00	0.72	1.55	2.40	3.21	3.71
2045	-0.30	0.14	0.91	1.77	2.67	3.53	4.05
2050	-0.15	0.31	1.11	2.02	2.97	3.86	4.41
2055	0.01	0.50	1.34	2.28	3.28	4.22	4.81
2060	0.18	0.69	1.57	2.56	3.62	4.62	5.26
2065	0.34	0.88	1.80	2.86	3.99	5.07	5.75
2070	0.49	1.07	2.05	3.18	4.39	5.54	6.26

2075	0.67	1.28	2.32	3.53	4.81	6.02	6.78
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Figure 1.3 – Maximum Average Summer Temperature, Grid Square 512500, 462500.



Seasonal average Mean air temperature anomaly at 1.5m (°C) for June July August in years 2019 up to and including 2079, for grid square 512500, 462500, using baseline 1981-2000, showing the 5th, 10th, 25th, 50th, 75th, 90th and 95th percentiles



Summer precipitation

Table 1.4 and Figure 1.4 show the projections for average summer precipitation for the 25km grid cell within which the Three Oaks Renewable Energy Park Extension site is located. The projections show an overall decline in precipitation over the lifetime of the Proposed Development and beyond.

Table 1.4 – Average Summer Precipitation Rate Anomaly (%)

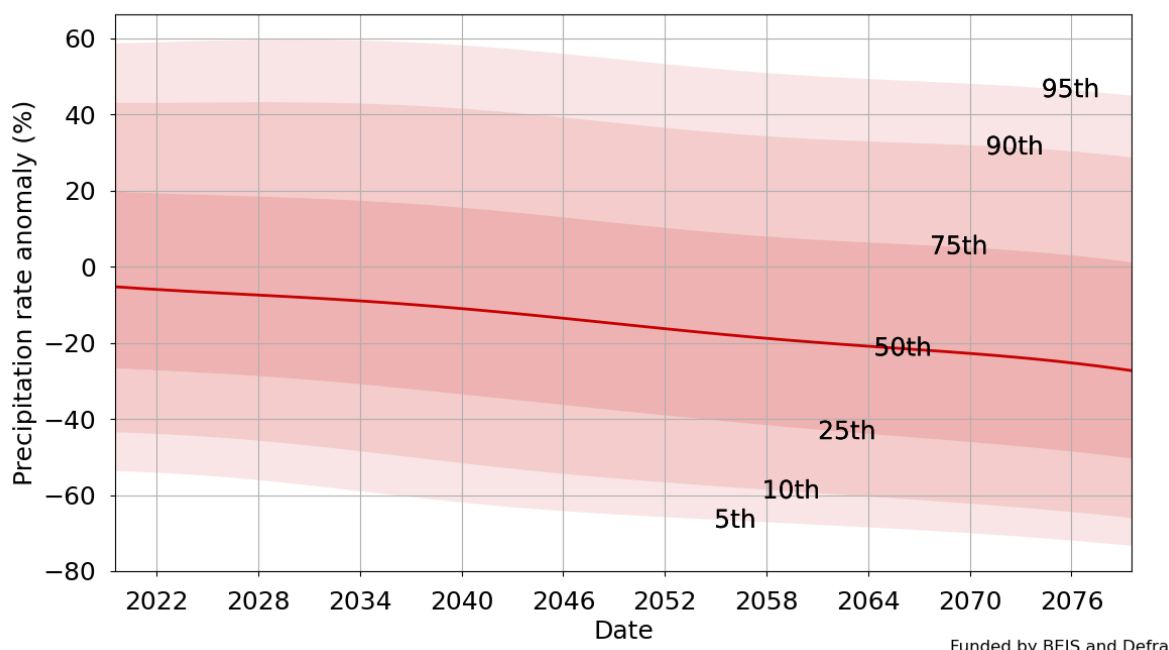
Date	Percentile						
	5th	10th	25th	50 th	75th	90th	95th
2025	-55.12	-44.85	-28.06	-6.87	18.78	43.16	59.39
2030	-57.22	-46.78	-29.57	-8.06	18.04	43.17	59.67
2035	-59.77	-49.27	-31.53	-9.45	16.96	42.63	59.23
2040	-62.18	-51.89	-33.78	-11.22	15.32	41.35	58.01
2045	-64.07	-54.23	-36.11	-13.34	13.19	39.41	56.14
2050	-65.46	-56.16	-38.40	-15.62	10.87	37.13	53.91
2055	-66.59	-57.83	-40.60	-17.84	8.78	35.07	51.79
2060	-67.70	-59.37	-42.64	-19.75	7.19	33.60	50.16
2065	-68.85	-60.87	-44.47	-21.37	6.03	32.66	48.99
2070	-70.16	-62.43	-46.26	-22.98	4.88	31.81	47.94

2075	-71.77	-64.25	-48.34	-25.05	3.20	30.48	46.54
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Figure 1.4 – Average Summer Precipitation, Grid Square 512500, 462500.



Seasonal average Precipitation rate anomaly (%) for June July August in years 2019 up to and including 2079, for grid square 512500, 462500, using baseline 1981-2000, showing the 5th, 10th, 25th, 50th, 75th, 90th and 95th percentiles



Winter temperature

Table 1.5 and Figure 1.5 show the projections for average minimum Winter temperature for the 25km grid cell within which the Three Oaks Renewable Energy Park Extension site is located. The projections show an overall increase in winter air temperature over the lifetime of the Proposed Development and beyond.

Table 1.5 – Average minimum winter air temperature (°C)

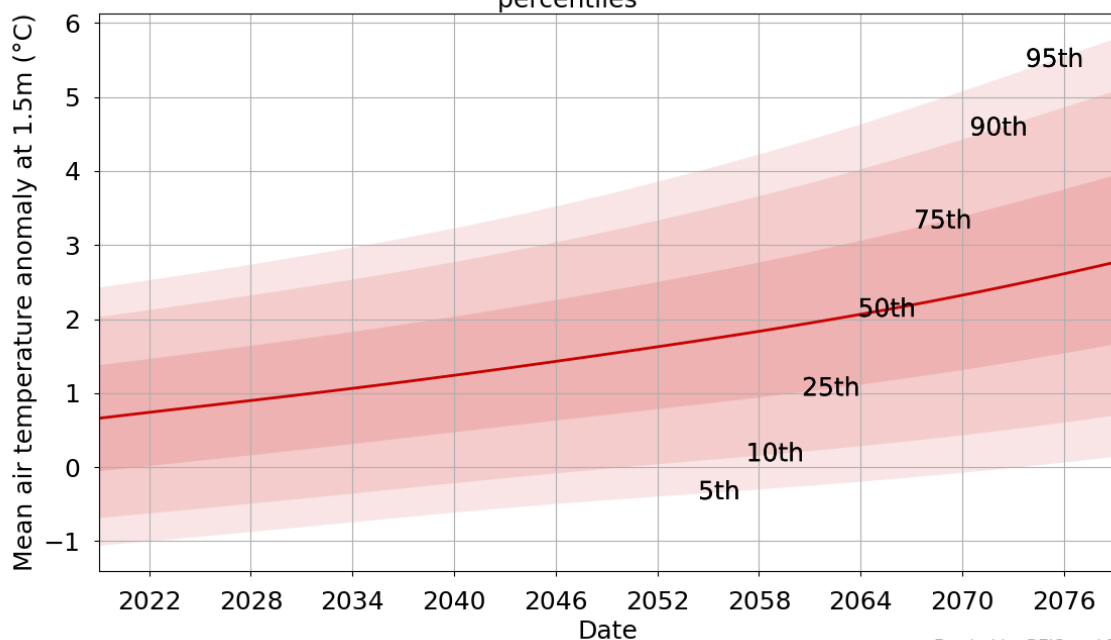
Date	Percentile						
	5th	10th	25th	50th	75th	90th	95th
2025	-0.94	-0.56	0.09	0.82	1.55	2.22	2.63
2030	-0.83	-0.45	0.21	0.95	1.70	2.39	2.81
2035	-0.72	-0.33	0.34	1.09	1.86	2.57	3.01
2040	-0.61	-0.22	0.47	1.24	2.03	2.77	3.23
2045	-0.52	-0.10	0.60	1.40	2.22	2.99	3.47
2050	-0.43	0.00	0.73	1.56	2.42	3.23	3.74
2055	-0.35	0.10	0.86	1.73	2.63	3.49	4.04
2060	-0.27	0.20	1.00	1.91	2.86	3.78	4.36
2065	-0.18	0.31	1.15	2.11	3.11	4.09	4.70
2070	-0.08	0.43	1.31	2.32	3.39	4.43	5.08

2075	0.04	0.57	1.50	2.56	3.69	4.79	5.47
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Figure 1.5 – Minimum Average Winter Temperature, Grid Square 512500, 462500.



Seasonal average Mean air temperature anomaly at 1.5m (°C) for December January February in years 2019 up to and including 2079, for grid square 512500, 462500, using baseline 1981-2000, showing the 5th, 10th, 25th, 50th, 75th, 90th and 95th percentiles



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Winter Precipitation

Table 1.6 and Figure 1.6 show the projections for average Winter precipitation for the 25km grid cell within which the Three Oaks Renewable Energy Park Extension site is located. The projections show an overall increase in winter precipitation over the lifetime of the Proposed Development and beyond.

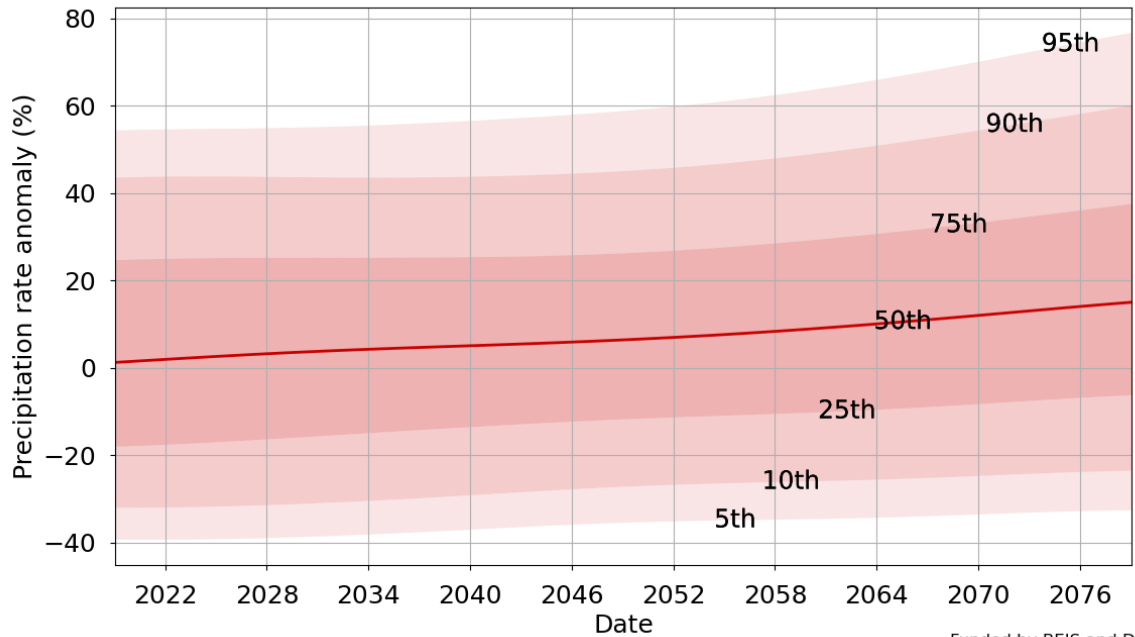
Table 1.6 - Average Winter precipitation Rate Anomaly (%)

Date	Percentile						
	5th	10th	25th	50th	75th	90th	95th
2025	-39.26	-31.79	-17.06	2.60	25.12	43.80	54.73
2030	-38.78	-31.17	-15.92	3.59	25.19	43.64	55.03
2035	-38.02	-30.29	-14.73	4.38	25.21	43.55	55.63
2040	-37.08	-29.19	-13.58	5.05	25.32	43.74	56.55
2045	-36.11	-28.04	-12.53	5.74	25.66	44.29	57.70
2050	-35.38	-27.09	-11.66	6.57	26.39	45.27	59.14
2055	-34.96	-26.46	-10.96	7.61	27.58	46.79	61.05
2060	-34.68	-26.03	-10.29	8.88	29.18	48.87	63.55
2065	-34.24	-25.50	-9.42	10.36	31.08	51.42	66.61
2070	-33.58	-24.77	-8.31	12.00	33.22	54.35	70.11
2075	-32.94	-24.01	-7.12	13.71	35.57	57.51	73.82

Figure 1.6 - Average Winter precipitation Rate Anomaly (%), Grid Square 512500, 462500.



Seasonal average Precipitation rate anomaly (%) for December January February in years 2019 up to and including 2079, for grid square 512500, 462500, using baseline 1981-2000, showing the 5th, 10th, 25th, 50th, 75th, 90th and 95th percentiles



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Reference

- Met Office (2026), *UK Climate Projections User Interface*. Available at <https://ukclimateprojections-ui.metoffice.gov.uk/ui/home> (accessed January 2026)