



Heatwave projections for selected locations in Queensland (1986 to 2090)

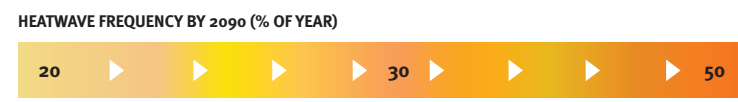
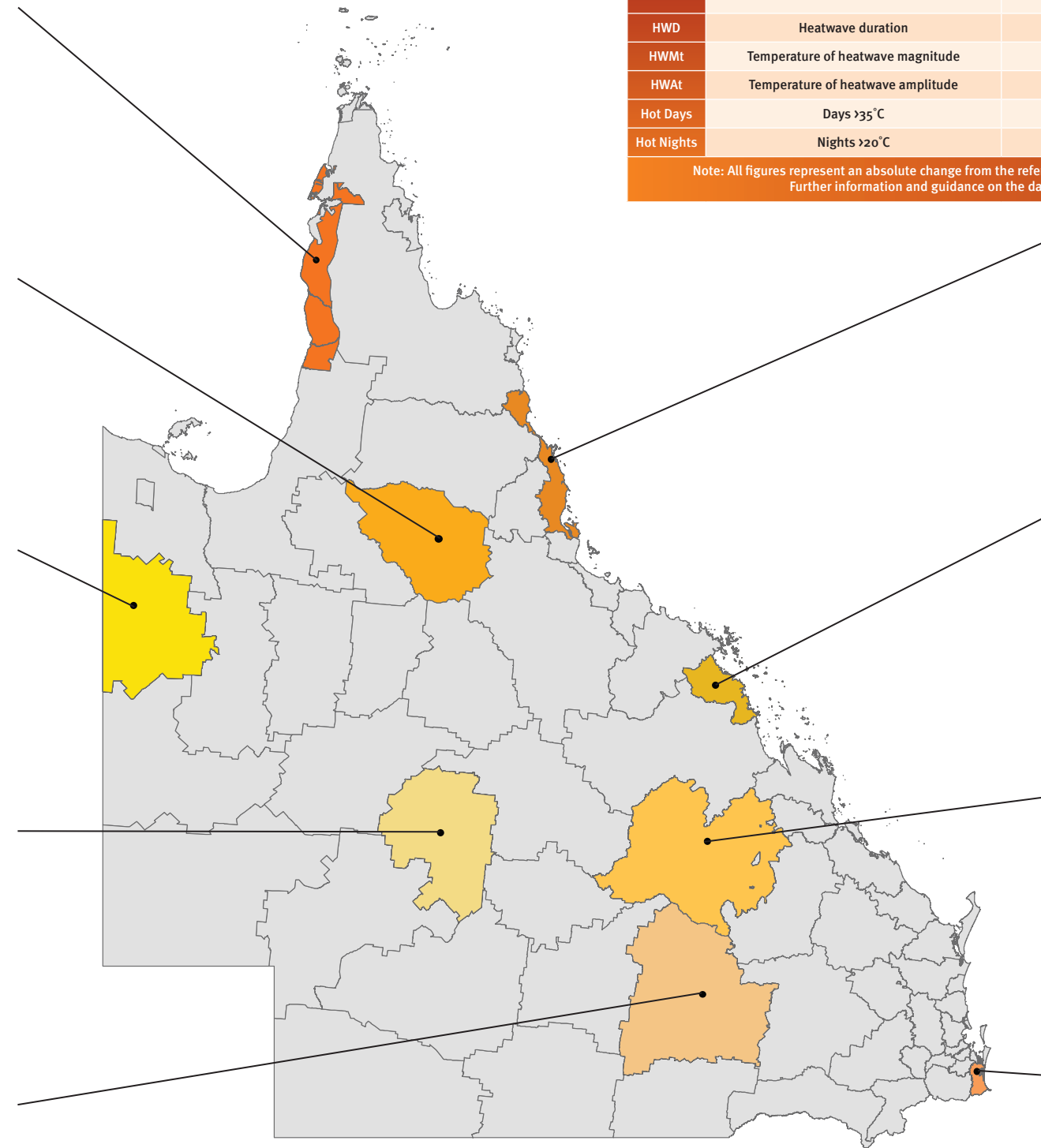
EASTERN GULF OF CARPENTARIA						
Index	Heatwave Index	Reference	2030	2050	2070	2090
HWF	Heatwave frequency (%)	0.4%	3.5%	8.8%	23.4%	44.4%
HWD	Heatwave duration (days)	2	6	14	35	62
HWMt	Temperature of heatwave magnitude (°C)	31.6	32.0	32.4	32.9	33.4
HWAt	Temperature of heatwave amplitude (°C)	31.8	32.4	33.1	34.2	35.3
Hot Days	Days >35°C	65	81	99	134	189
Hot Nights	Nights >20°C	253	288	320	347	358

ETHERIDGE						
Index	Heatwave Index	Reference	2030	2050	2070	2090
HWF	Heatwave frequency (%)	1.7%	2.9%	8.2%	19.5%	33.0%
HWD	Heatwave duration (days)	4	4	9	23	48
HWMt	Temperature of heatwave magnitude (°C)	31.4	31.8	32.1	32.6	33.0
HWAt	Temperature of heatwave amplitude (°C)	31.8	32.4	33.0	34.0	35.0
Hot Days	Days >35°C	91	112	152	185	213
Hot Nights	Nights >20°C	159	192	224	259	295

MOUNT ISA						
Index	Heatwave Index	Reference	2030	2050	2070	2090
HWF	Heatwave frequency (%)	1.6%	3.1%	7.2%	14.7%	22.8%
HWD	Heatwave duration (days)	4	3	7	15	29
HWMt	Temperature of heatwave magnitude (°C)	34.3	34.6	35.0	35.5	36.1
HWAt	Temperature of heatwave amplitude (°C)	34.8	35.3	36.0	37.0	38.2
Hot Days	Days >35°C	148	168	203	223	267
Hot Nights	Nights >20°C	177	203	228	254	284

LONGREACH						
Index	Heatwave Index	Reference	2030	2050	2070	2090
HWF	Heatwave frequency (%)	2.3%	3.3%	8.1%	14.5%	21.5%
HWD	Heatwave duration (days)	5	3	8	14	26
HWMt	Temperature of heatwave magnitude (°C)	34.1	34.3	34.8	35.2	35.7
HWAt	Temperature of heatwave amplitude (°C)	34.9	35.4	36.1	37.0	38.2
Hot Days	Days >35°C	123	145	171	192	217
Hot Nights	Nights >20°C	133	163	189	217	240

MARANOVA						
Index	Heatwave Index	Reference	2030	2050	2070	2090
HWF	Heatwave frequency (%)	2.5%	2.8%	7.6%	14.0%	22.3%
HWD	Heatwave duration (days)	5	3	7	12	23
HWMt	Temperature of heatwave magnitude (°C)	31.0	31.3	31.7	32.1	32.5
HWAt	Temperature of heatwave amplitude (°C)	31.9	32.4	33.1	34.0	34.8
Hot Days	Days >35°C	46	54	76	81	98
Hot Nights	Nights >20°C	60	93	122	154	182



UNDERSTANDING THE DATA		
Index	Heatwave Index	Definition
HWF	Heatwave frequency	Number of heatwave days relative to number of days in a year - i.e. [number of heatwave days/365] x 100 (%)
HWD	Heatwave duration	Number of days of the longest heatwave of the year (days)
HWMt	Temperature of heatwave magnitude	Average mean temperature (in °C) of all heatwave days across the year
HWAt	Temperature of heatwave amplitude	Average mean temperature (in °C) of the hottest heatwave days of the year
Hot Days	Days >35°C	Annual count of days with maximum temperature >35°C
Hot Nights	Nights >20°C	Annual count of nights with minimum temperature >20°C

Note: All figures represent an absolute change from the reference period (1986 to 2005) unless expressed in negative terms, based on RCP 8.5. Further information and guidance on the data represented within this infographic can be found at Appendix F.

WET TROPICS COAST						
Index	Heatwave Index	Reference	2030	2050	2070	2090
HWF	Heatwave frequency (%)	1.4%	3.1%	12.5%	29.5%	41.6%
HWD	Heatwave duration (days)	3	4	15	44	80
HWMt	Temperature of heatwave magnitude (°C)	29.2	29.4	29.7	30.3	30.9
HWAt	Temperature of heatwave amplitude (°C)	29.6	29.9	30.6	31.6	32.8
Hot Days	Days >35°C	3	4	17	35	72
Hot Nights	Nights >20°C	179	217	253	289	321

MACKAY						
Index	Heatwave Index	Reference	2030	2050	2070	2090
HWF	Heatwave frequency (%)	2.1%	3.2%	10.6%	24.3%	35.8%
HWD	Heatwave duration (days)	4	4	11	34	72
HWMt	Temperature of heatwave magnitude (°C)	29.0	29.3	29.7	30.2	30.7
HWAt	Temperature of heatwave amplitude (°C)	29.5	30.0	30.6	31.6	32.8
Hot Days	Days >35°C	4	9	20	33	67
Hot Nights	Nights >20°C	128	157	186	217	255

CENTRAL HIGHLANDS						
Index	Heatwave Index	Reference	2030	2050	2070	2090
HWF	Heatwave frequency (%)	2.7%	3.0%	8.1%	16.3%	26.5%
HWD	Heatwave duration (days)	5	3	7	16	33
HWMt	Temperature of heatwave magnitude (°C)	30.9	31.3	31.7	32.2	32.7
HWAt	Temperature of heatwave amplitude (°C)	31.8	32.4	33.2	34.2	35.3
Hot Days	Days >35°C	50	62	85	95	117
Hot Nights	Nights >20°C	86	117	146	178	206

CITY OF GOLD COAST						
Index	Heatwave Index	Reference	2030	2050	2070	2090
HWF	Heatwave frequency (%)	2.1%	3.1%	8.9%	18.4%	28.4%
HWD	Heatwave duration (days)	4	4	9	22	45
HWMt	Temperature of heatwave magnitude (°C)	27.4	27.7	28.1	28.7	29.1
HWAt	Temperature of heatwave amplitude (°C)	28.4	28.9	29.7	30.7	31.6
Hot Days	Days >35°C	1	3	6	13	34
Hot Nights	Nights >20°C	50	76	106	141	175

Infographic created by Queensland Fire and Emergency Services. Data supplied by the Climate Science Division, Department of Environment and Science

