Pittsburgh Mean Annual Changes

a. Temperature

Baseline (1971 - 2000) 51 °F	Low Estimate (10th Percentile)	Middle Range (25th to 75th Percentile)	High Estimate (90th Percentile)
2020s	+ 1.6 °F	+ 2.3 to 3.1 °F	+ 3.7 °F
2050s	+ 3.4 °F	+ 4.3 to 6.1 °F	+ 6.9 °F
2080s	+ 4.0 °F	+ 5.4 to 9.4 °F	+ 11.1 °F

b. Precipitation

Baseline (1971 - 2000) 37.9 inches	Low Estimate (10th Percentile)	Middle Range (25th to 75th Percentile)	High Estimate (90th Percentile)
2020s	- 1 percent	+ 2 to + 7 percent	+ 11 percent
2050s	+ 1 percent	+ 4 to + 11 percent	+ 15 percent
2080s	0 percent	+ 5 to + 14 percent	+ 19 percent

Based on 33 GCMs and two Representative Concentration Pathways. Baseline data are for the 1971 to 2000 base period and are from the NOAA National Climatic Data Center (NCDC) Shown are the low-estimate (10th percentile), middle range (25th percentile to 75th percentile), and high-estimate (90th percentile).

Pittsburgh Extreme Events

a. 2020s

	Low Estimate (10th Percentile)	Middle Range (25th to 75th Percentile)	High Estimate (90th Percentile)
Number of days per year with maximum temperature at or above over 90°F (8 days)	13	14 to 21	28
Number of days per year with minimum temperature at or below 32°F (119 days)	86	90 to 98	103
Number of days per year with rainfall at or above 1 inch (6 days)	6	6 to 7	8
Number of days per year with rainfall at or above 2 inches (0.6 days)	0.6	0.6 to 0.9	1
Numbers of heat waves per year (1 heat wave)	2	2 to 3	4
Average heat wave duration (in days) (5 days)	5	5 to 5	5

Projections for temperature and precipitation are based on 33GCMs and 2 RCPs. Baseline data (shown in parenthesis) are for the 1971 to 2000 base period and are from the NOAA National Climatic Data Center (NCDC). Shown are the low-estimate (10th percentile), middle range (25th to 7[t5h] percentile), and high-estimate (90th percentile) 30-year mean values from model-based outcomes. Decimal places are shown for values less than 1, although this does not indicate higher precision/certainty. Heat waves are defined as three more consecutive days with maximum temperatures at or above 90 °F.

b. 2050s

	Low Estimate (10th Percentile)	Middle Range (25th to 75th Percentile)	High Estimate (90th Percentile)
Number of days per year with maximum temperature at or above over 90°F (8 days)	20	27 to 44	59
Number of days per year with minimum temperature at or below 32°F (119 days)	65	73 to 84	94
Number of days per year with rainfall at or above 1 inch (6 days)	6	7 to 8	9
Number of days per year with rainfall at or above 2 inches (0.6 days)	0.6	0.7 to 0.9	1
Numbers of heat waves per year (1 heat wave)	2	3 to 6	7
Average heat wave duration (in days) (5 days)	5	5 to 5	6

Projections for temperature and precipitation are based on 33GCMs and 2 RCPs. Baseline data (shown in parenthesis) are for the 1971 to 2000 base period and are from the NOAA National Climatic Data Center (NCDC). Shown are the low-estimate (10th percentile), middle range (25th to 7t5h percentile), and high-estimate (90th percentile) 30-year mean values from model-based outcomes. Decimal places are shown for values less than 1, although this does not indicate higher precision/certainty. Heat waves are defined as three more consecutive days with maximum temperatures at or above 90 °F.

c. 2080s

	Low Estimate (10th Percentile)	Middle Range (25th to 75th Percentile)	High Estimate (90th Percentile)
Number of days per year with maximum temperature at or above over 90°F (8 days)	29	34 to 74	100
Number of days per year with minimum temperature at or below 32°F (119 days)	47	56 to 77	90
Number of days per year with rainfall at or above 1 inch (6 days)	6	7 to 9	10
Number of days per year with rainfall at or above 2 inches (0.6 days)	0.5	0.7 to 1	1
Numbers of heat waves per year (1 heat wave)	4	4 to 9	9
Average heat wave duration (in days) (5 days)	5	5 to 7	10

Projections for temperature and precipitation are based on 33GCMs and 2 RCPs. Baseline data (shown in parenthesis) are for the 1971 to 2000 base period and are from the NOAA National Climatic Data Center (NCDC). Shown are the low-estimate (10th percentile), middle range (25th to 7t5h percentile), and high-estimate (90th percentile) 30-year mean values from model-based outcomes. Decimal places are shown for values less than 1, although this does not indicate higher precision/certainty. Heat waves are defined as three more consecutive days with maximum temperatures at or above 90 °F.