NSW GOVERNMENT

In partnership with

ACT Government

Australian Capital Territory

Climate Change Snapshot

environment.nsw.gov.au

Acknowledgement of Country

The NSW Government and the ACT Government acknowledge First Nations people as the first Australian people and the traditional owners and custodians of the country's lands and water.

The ACT Government acknowledges the Ngunnawal Aboriginal people as traditional custodians of the ACT and recognises any other people or families with connection to the lands of the ACT and region. We acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

Australia's First Nations people have lived in NSW and the ACT for over 60,000 years and have significant spiritual, cultural and economic connections with its lands, waters, seas and skies.

They are the first astronomers and scientists who have been listening to and caring for Country for generations.

We pay respects to Elders past and present and acknowledge the significance of their traditional knowledge in adapting to changes in climate over tens of thousands of years.

We recognise the importance of their wisdom at this pivotal moment in time.

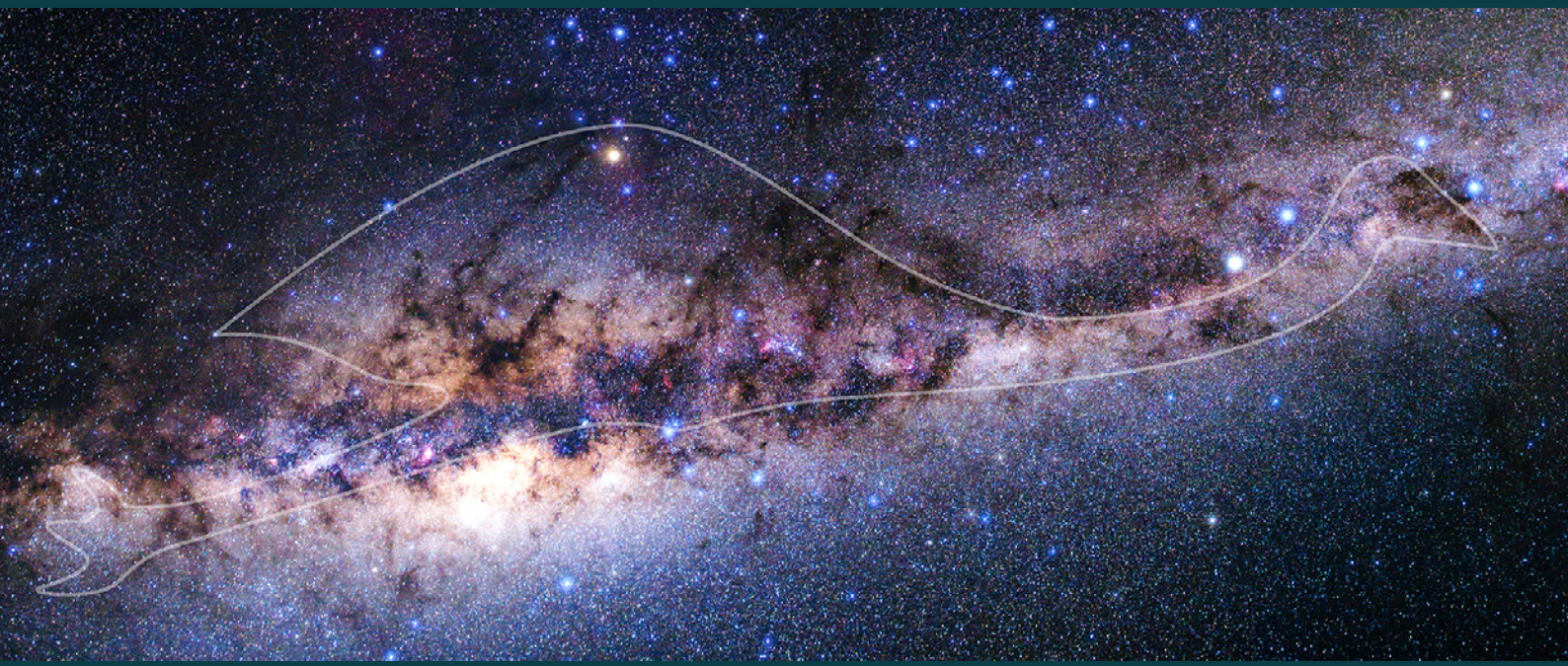

Photo caption:
The Emu in the Sky is an Aboriginal constellation that is made up of the dark clouds of the Milky Way. With the movement of the earth, the position of the Emu in the Sky changes throughout the year. Aboriginal people in some nations across NSW and Australia relate the position of the Emu in the Sky to the breeding behaviour of the emu on the land. Cultural astronomy teaches us about the relationship between the sky and land; and that we are all interconnected.

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About this snapshot

The New South Wales (NSW) and Australian Regional Climate Modelling (NARCliM) project delivers high-resolution climate change projections for NSW and south-east Australia.

This snapshot summarises the latest NARCliM2.0 projections for temperature, average rainfall, hot days 35°C and above, cold nights under 2°C and severe fire weather (Forest Fire Danger Index greater than 50) at a 4km resolution for NSW and the Australian Capital Territory (ACT). There is information for both a low-emissions scenario (SSP1-2.6), and a high-emissions scenario (SSP3-7.0) to the year 2100 to show the range of plausible climates that may be experienced, depending on our actions to reduce greenhouse gas emissions.

Understanding current warming

NSW and the ACT have already warmed by 1.4°C since national records began in 1910.[1] This local warming figure represents surface air temperature over land in NSW and is not directly comparable to average estimates of global warming which include surface air temperature over both land and ocean. Surface warming occurs faster over land than the ocean. Significant impacts from climate change are already occurring in NSW and are expected to be felt more widely in the future, particularly if concerted global effort is not taken to reduce greenhouse gas emissions and adapt to the expected impacts of climate change.

How to use this snapshot

This snapshot provides a summary of plausible future climate change in the ACT relative to a baseline of average climate from 1990–2009. The projections for 2050 represent averaged data for 2040–2059 and projections for 2090 represent averaged data for 2080–2099. In translating the projections, it is important to consider the previous historical changes that occurred prior to 1990–2009. For example, national temperature records indicate that NSW has warmed by 0.84°C between 1910–1930 and the 1990–2009 baseline.[1]

Modelling climate change at a local level provides detailed insights into how NSW communities, built environments and natural environments will continue to be impacted by climate change. Information in this snapshot can be used in conjunction with detailed information that is available through the AdaptNSW Interactive Map and the Climate Data Portal.

NARCliM climate projections

NARCliM2.0 projections provide nation-leading climate model data that span the range of plausible future changes in climate for south-east Australia at a 4km resolution, and for the broader Australasian region at a 20km resolution. NARCliM2.0 projections are the next generation of NARCliM, building on previous generations delivered in 2014 and 2021. NARCliM is the NSW Government's trusted source of climate information and data for all audiences and sectors. Detailed information on NARCliM can be found at AdaptNSW.

Methods and uncertainty

To help address future uncertainty, NARCliM2.0 is built on a selection of emissions scenarios, global climate models and regional climate models that, together, capture a range of climates that could occur. This is referred to as the NARCliM model ensemble. The NARCliM2.0 model ensemble is made up of different combinations of 5 selected global climate models and 2 regional climate models, giving 10 model combinations in total. Unless otherwise specified, the presentation of data in this snapshot is averaged across a 20-year period from the NARCliM model ensemble.

Combining multiple models through averaging and other statistical methods produces better projections by providing a comprehensive range of possible future climate scenarios. To ensure that NARCliM models adequately simulate regional climate, scientists use them to simulate the past climate and compare the results with actual observations. Outputs undergo rigorous quality control and scientific technical peer review. There is more information on the modelling project and scientific methods at AdaptNSW.

Shared Socioeconomic Pathways

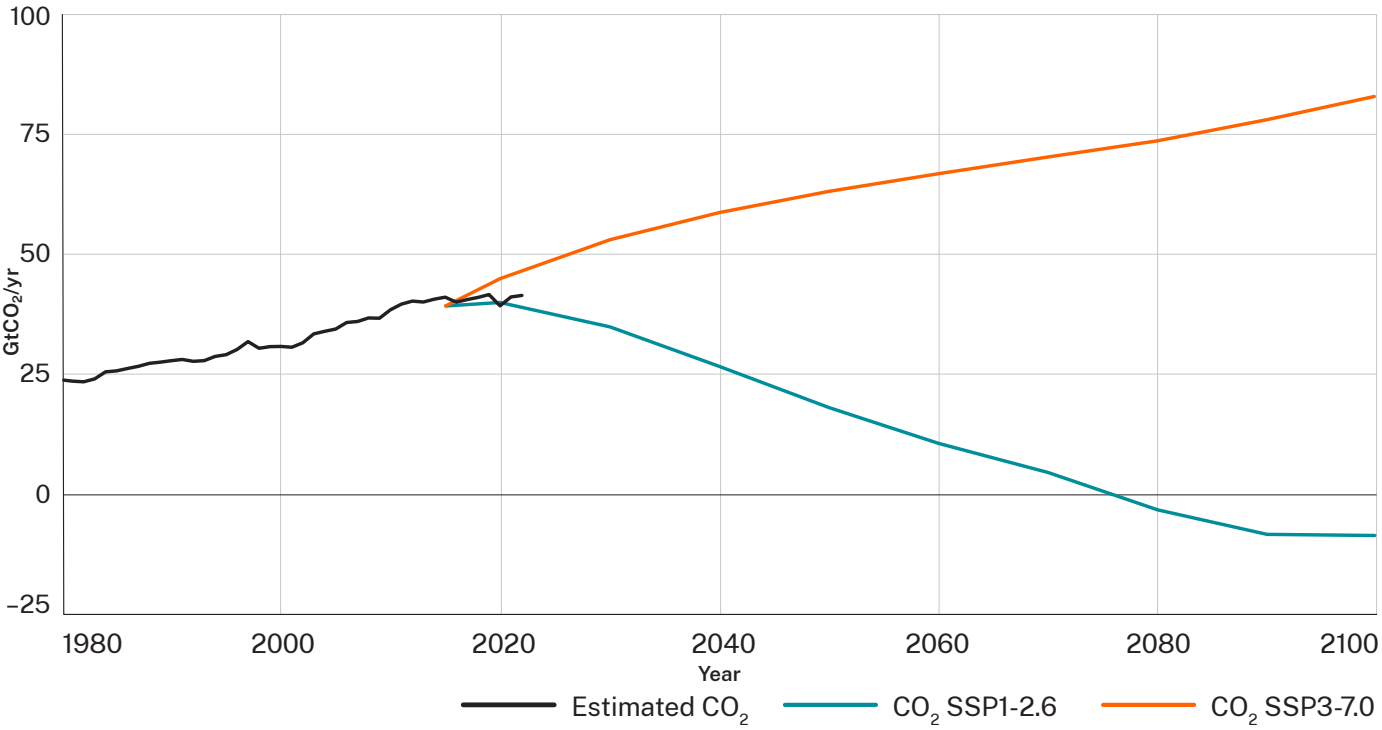
Shared Socioeconomic Pathways (SSPs) are the most recent emissions scenarios adopted in the IPCC's Sixth Assessment Report.

The SSPs describe how greenhouse gas emissions and socioeconomic factors – such as population, economic growth, education, urbanisation and land use – may change in the future. Global carbon dioxide emissions modelled for a low-emissions scenario and a high-emissions scenario are displayed below (Figure 1). For more information on emissions scenarios, visit AdaptNSW.

SSP1-2.6 describes a low-emissions future with a global transition towards sustainable and equitable development.

SSP3-7.0 describes a high-emissions future of regional conflict and development where countries do not collaborate on tackling climate change and do not focus on sustainable and equitable development.

Figure 1. Human-caused global emissions of carbon dioxide – past and projected



Mental health support

Climate change information can be distressing for some readers, with many Australians of all ages experiencing significant eco-anxiety. For supporting information, please visit the Black Dog Institute or Australian Psychological Society or speak with your local healthcare provider.

Projected changes
Australian Capital Territory

Low-emissions scenario

Average temperature increase

↑ **1.1°C**
2050

↑ **1.2°C**
2090

Hot days per year will increase by:

2050	2090
2.6	3.2

Cold nights per year will decrease by:

2050	2090
19.1	22.3

Average rainfall will decrease by:

2050	2090
8.7%	9.9%

High-emissions scenario

Average temperature increase

↑ **1.8°C**
2050

↑ **3.7°C**
2090

Hot days per year will increase by:

2050	2090
5.3	12.8

Cold nights per year will decrease by:

2050	2090
32.4	67.7

Average rainfall will decrease by:

2050	2090
13.9%	12.9%

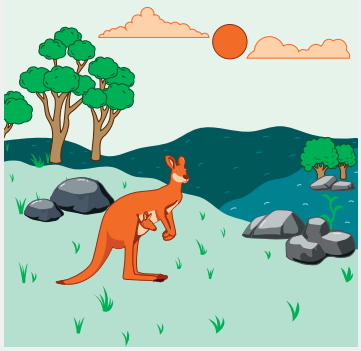
Regional impacts

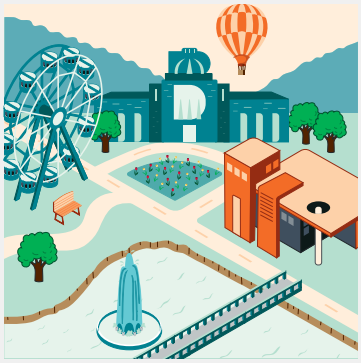
Canberra

Increased extreme heat

Bushland

Increased temperatures





Increased severe fire weather

Urban fringe

Changes to rainfall

Water supply

Data is based on NARCliM2.0 (2024) projections for SSP1-2.6 (low-emissions) and SSP3-7.0 (high-emissions) and is presented relative to the historical climate baseline of 1990–2009. The projections for 2050 represent averaged data for 2040–2059 and projections for 2090 represent averaged data for 2080–2099. Values presented are averages across the NARCliM2.0 model ensemble, and do not represent the full range of plausible climate futures. Regional climate change impacts are used to highlight how the region is likely to be affected by climate change, and impacts are not limited to the examples provided.

Climate of the ACT

The climate of NSW and the ACT underpins a diverse array of important natural ecosystems, lifestyles and industries. A stable climate is critical to a range of values in NSW and the ACT, including the maintenance of our unique biodiversity, our recreational activities and our food systems.

The ACT is home to Australia's capital city, Canberra, with a population of over 450,000 people. Canberra serves as a regional hub for smaller regional cities, towns and villages in the surrounding areas of NSW.

Current climate

Overall the ACT has a relatively dry, continental climate, experiencing warm to hot summers and cool to cold winters. However, due to the ACT's varied landscape, the ACT does experience a range of climatic conditions over a relatively small area. The average climate gets cooler and wetter the further south you go. In the north of the territory, around Canberra, it is relatively dry and warm compared to the much cooler and wetter south-western area around the northern Australian Alps in Namadgi National Park. Northern parts of the territory experience mild summers, with colder winters experienced in the alpine regions of the Namadgi National Park. More mild conditions are experienced in the central part of the ACT with warmer winters than the south, but cooler summers than the north of the territory. The range of climates support a variety of habitats including open grasslands, low open woodlands and tall wet forests. The region also contains important sub-alpine heathlands and wetlands.

Table 1. Baseline climate for the ACT

	Average temperature	Hot days	Cold nights	Rainfall	Severe fire weather days
Observed	11.5°C	2.8	116.2	741mm	0.3
Historical model	10.8°C	2.1	122.7	763mm	0.4

Table 1 outlines the annual average values for the 1990–2009 baseline period in this snapshot. All observed data is calculated from Bureau of Meteorology products. Long-term temperature change data is from the long-term temperature record.[1] Observed information and data in graphs come from Australian Gridded Climate Data (AGCD).[2]

Temperature

The ACT is getting warmer

Temperature is the most robust indicator of climate change. In Canberra, 6 of the 10 warmest years on record since 1910 have occurred since 2013. The warmest year on record for both mean temperature and maximum temperature in the ACT was 2019, when average temperature was 1.0°C above the 1990–2009 average.[2]

3.7°C

rise in average temperature across the ACT by 2090 under a high-emissions scenario

6 of 10

warmest years on record have occurred since 2013

Projections

Across the ACT, average temperatures will increase throughout this century (Figure 2).

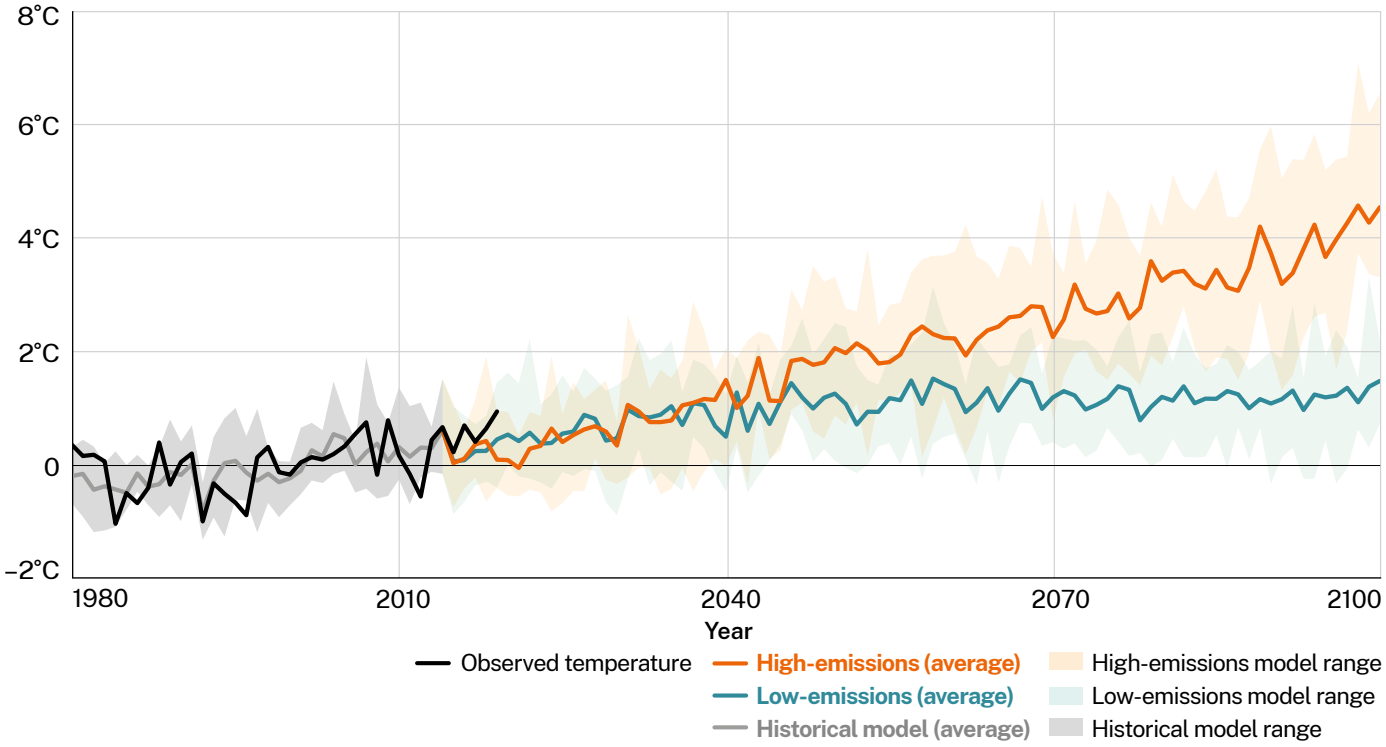
Under a low-emissions scenario, the average temperature increase across the region is projected to be less than 0.1°C between 2050 and 2090 (Table 2). However, a major temperature increase of 1.9°C is expected during the same period under a high-emissions scenario. Notably, the temperature projections for 2050 under a high-emissions scenario are expected to exceed the projections for 2090 under a low-emissions scenario.

Table 2. Projected annual average temperature increase – ACT

	2050		2090	
	Low-emissions	High-emissions	Low-emissions	High-emissions
Temperature	**1.1°C** (0.4–1.6°C)	**1.8°C** (0.9–2.7°C)	**1.2°C** (0.5–1.9°C)	**3.7°C** (2.5–5.2°C)
Maximum temperature	**1.2°C** (0.4–1.7°C)	**2.0°C** (1.0–2.9°C)	**1.3°C** (0.5–2.1°C)	**3.9°C** (2.7–5.5°C)
Minimum temperature	**1.0°C** (0.5–1.4°C)	**1.7°C** (0.8–2.5°C)	**1.1°C** (0.6–1.6°C)	**3.5°C** (2.4–5.0°C)

The bold number is the ensemble average for the period. Underneath the average is the ensemble range.

Figure 2. Historical and projected average temperature change – ACT

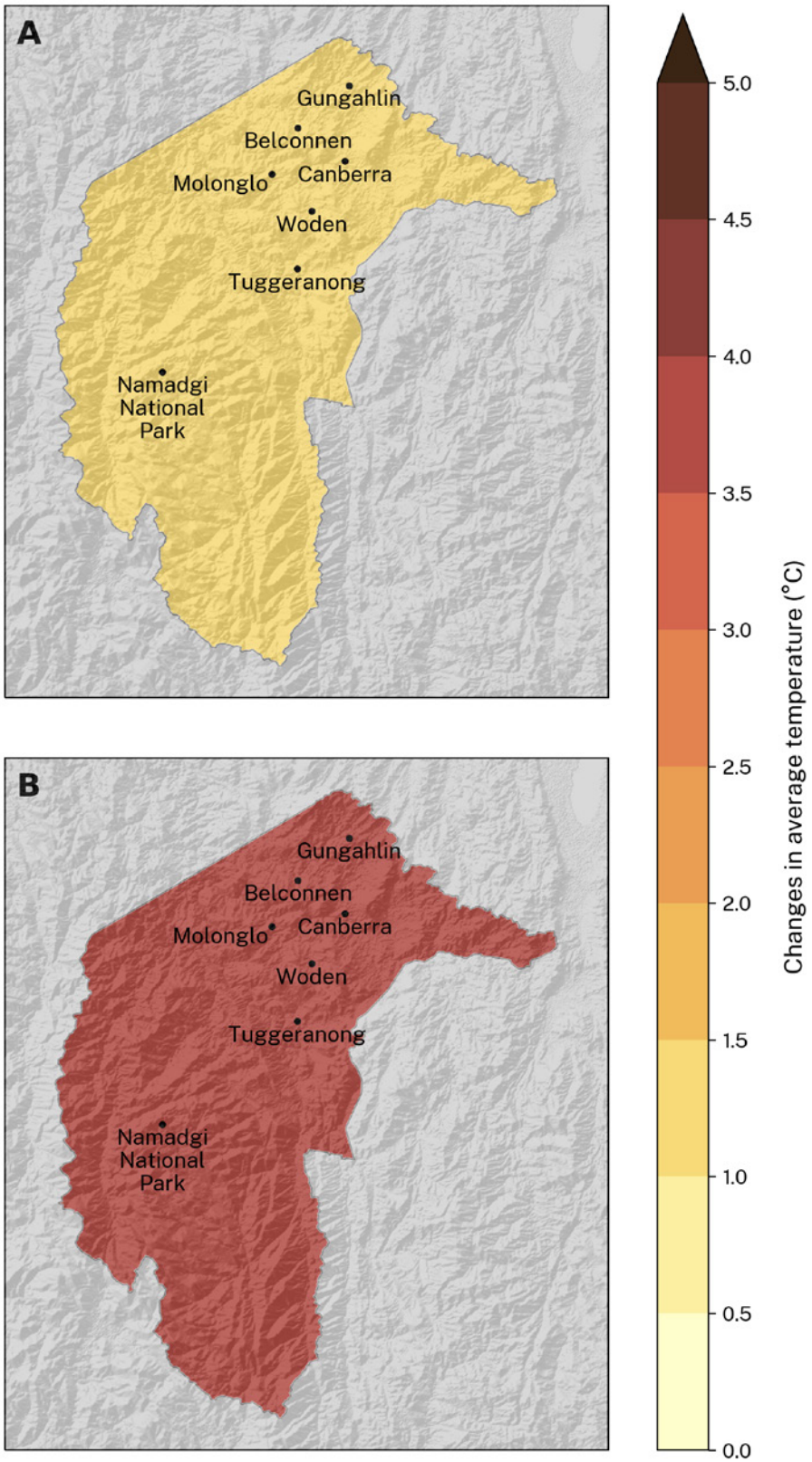


The shading around the graphs

The climate change projections presented in this snapshot are relative to the historical climate baseline of 1990–2009. The graphs provide a projected annual average for the 2 emissions scenarios.

The range of plausible climate futures across the NARCliM model ensemble is shown by light shading. For historical climate data, both recorded observational data (dark line) and modelling of the past climate in NARCliM2.0 (grey) are presented.

Figure 3. Projected change in average temperature by 2090 for the ACT under A) a low-emissions scenario and B) a high-emissions scenario



Hot days

Hot days will become more frequent

Prolonged hot days when maximum temperatures are 35°C or above increase the incidence of illness and death – particularly among vulnerable people. Seasonal changes in hot days could have significant impacts on bushfire danger, infrastructure and native species. The number of hot days observed for the ACT is on average 2.8 hot days per year.[2]

Changes to **temperature extremes** often have **more pronounced impacts** than changes in average **temperature**.

Higher maximum temperatures affect health through **heat stress** and exacerbate existing health conditions.

Projections

The number of hot days will increase for the ACT by 2050 for both a low-emissions and a high-emissions scenario, with an even greater increase by 2090 under a high-emissions scenario (Table 3). The number of hot days is projected to increase across spring, summer and autumn, with the largest increase expected during summer.

Under a low-emissions scenario, there is a minimal increase in the number of hot days between 2050 and 2090, with less than 1 additional hot day per year projected across the region (Table 3). However, an increase of 7.5 additional hot days is projected under a high-emissions scenario between 2050 and 2090.

By 2090, Canberra could experience more than five times the number of hot days per year.

The changes will occur across most of the region (Figure 5). Canberra is projected to experience the greatest increases in the number of hot days, with alpine regions of Namadgi National Park expected to experience smaller increases. By 2090, Canberra will likely experience 7.0 additional hot days under a low-emissions scenario and 24.8 additional hot days under a high-emissions scenario. A high-emissions scenario is projected to be more than five times Canberra's baseline period average of 5.6 hot days per year. Comparatively, Namadgi National Park's baseline period average is 0.3 hot days per year. By 2090, the park is projected to experience an additional 0.9 hot days under a low-emissions scenario and 5.9 additional hot days under a high-emissions scenario.

Table 3. Projected increase in average annual number of hot days – ACT

2050		2090	
Low-emissions	High-emissions	Low-emissions	High-emissions
2.6 days (0.4 to 5.4 days)	**5.3 days** (0.5 to 12.6 days)	**3.2 days** (0.8 to 8.3 days)	**12.8 days** (4.5 to 27.3 days)

The bold number is the ensemble average for the period. Underneath the average is the ensemble range.

Figure 4. Historical and projected change in annual number of hot days – ACT

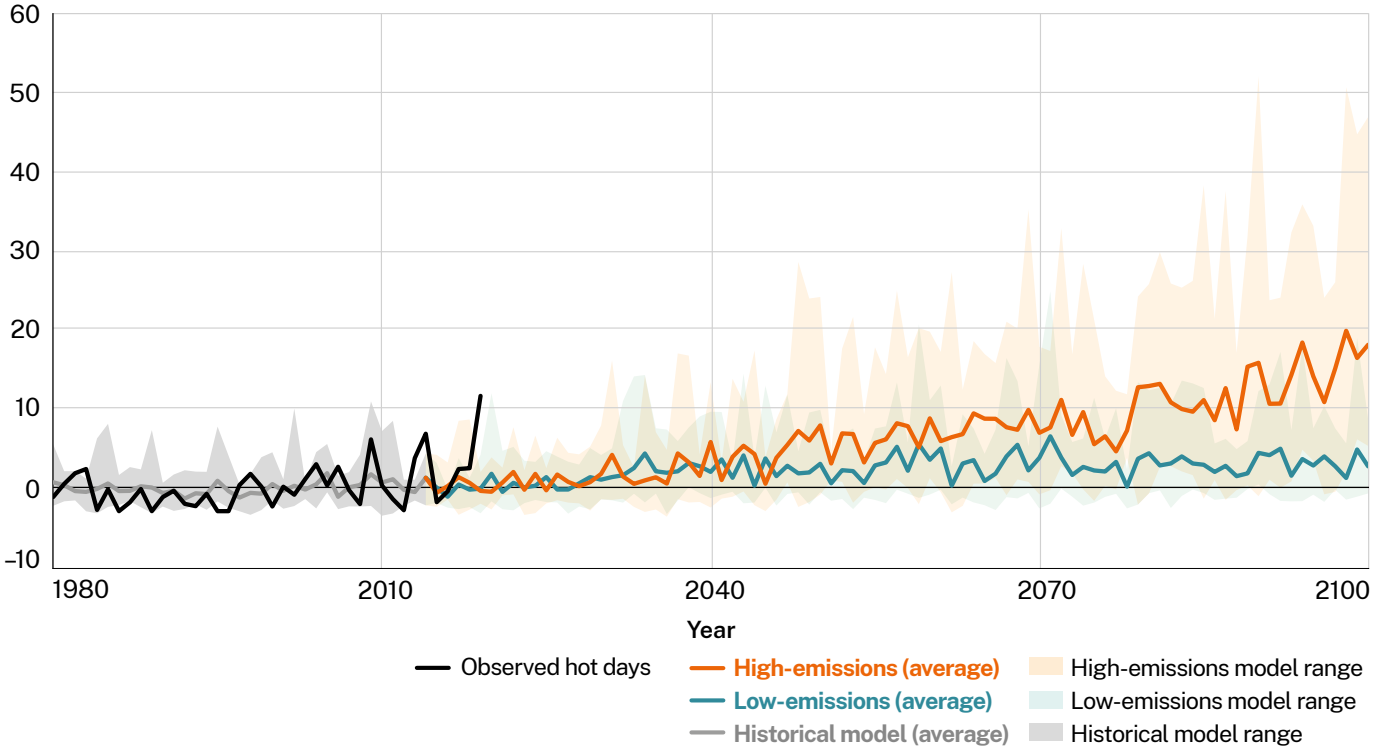
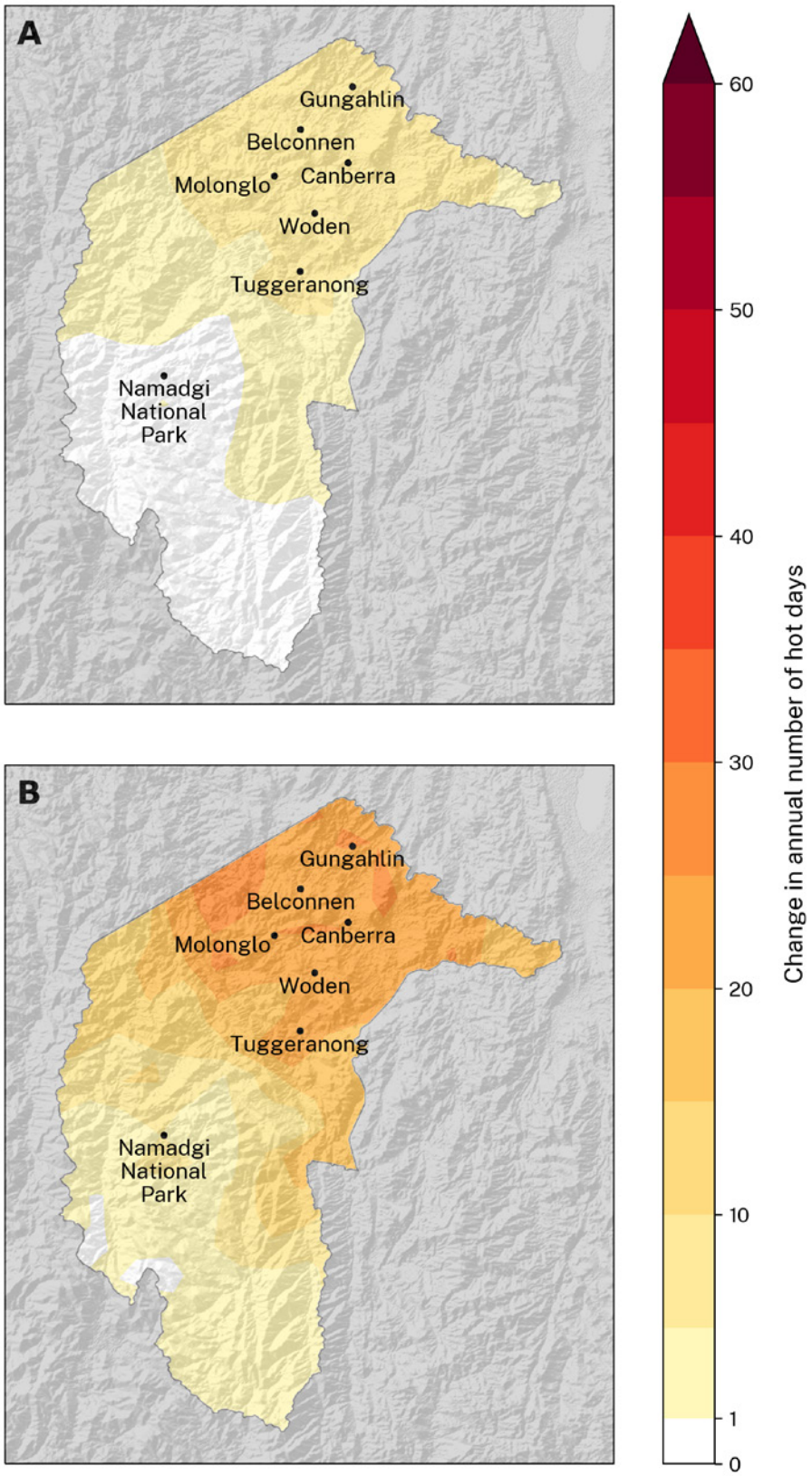


Figure 5. Projected change in annual number of hot days by 2090 for the ACT under A) a low-emissions scenario and B) a high-emissions scenario



Cold nights

Cold nights will decrease

Cold nights are those where the minimum temperature drops below 2°C. These are important for the survival of some important plant species. For example, some common temperate fruit species require sufficiently cold winters to produce flower buds and alpine ecosystems are reliant on cold nights.

Projections

The number of cold nights varies across the ACT. During the baseline period, alpine regions of Namadgi National Park had on average more than 140 cold nights per year, while Canberra's urban area had on average 76.4 cold nights per year.

The number of cold nights will decrease for the ACT by 2050 for both a low-emissions and a high-emissions scenario, with an even greater decrease by 2090 under a high-emissions scenario (Table 4). The number of cold nights is projected to decrease across autumn, winter and spring, with the largest decreases in winter.

Under a low-emissions scenario, there is a small decrease of 3.2 fewer cold nights per year projected across the region between 2050 and 2090. However, a decrease of 35.3 fewer cold nights per year is projected under a high-emissions scenario during the same period.

Cold nights will decrease across all of the region, particularly in alpine regions of Namadgi National Park (Figure 7). Large decreases are projected to occur across the entire region, with greater decreases in Namadgi National Park. By 2090, Canberra is projected to have 20.4 fewer cold nights per year under a low-emissions scenario and 55.5 fewer cold nights per year under a high-emissions scenario. A high-emissions scenario is projected to reduce Canberra's 76.4 cold nights per year base period average by more than 70%.

Under a high-emissions scenario, the number of cold nights in Canberra could reduce by more than 70% by 2090.

Cold nights for alpine areas in Namadgi National Park could more than halve under a high-emissions scenario by 2090.

Under a low-emissions scenario, the number of cold nights across the ACT could reduce by less than 20% by 2090.

Cold nights

Table 4. Projected decrease in average annual number of cold nights – ACT

2050		2090	
Low-emissions	High-emissions	Low-emissions	High-emissions
19.1 days (9.7 to 25.4 days)	**32.4 days** (19.3 to 42.4 days)	**22.3 days** (13.2 to 28.0 days)	**67.7 days** (54.5 to 88.1 days)

The bold number is the ensemble average for the period. Underneath the average is the ensemble range.

Figure 6. Historical and projected change in annual number of cold nights – ACT

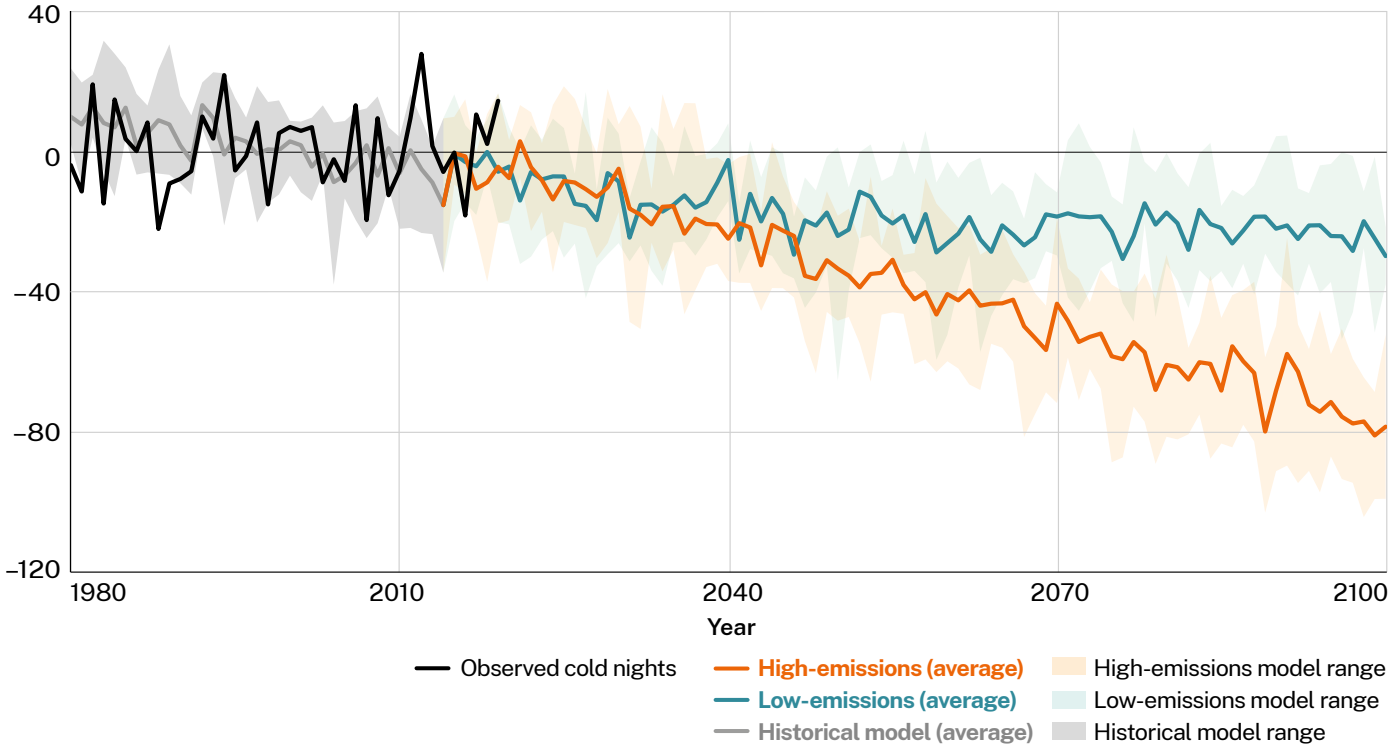
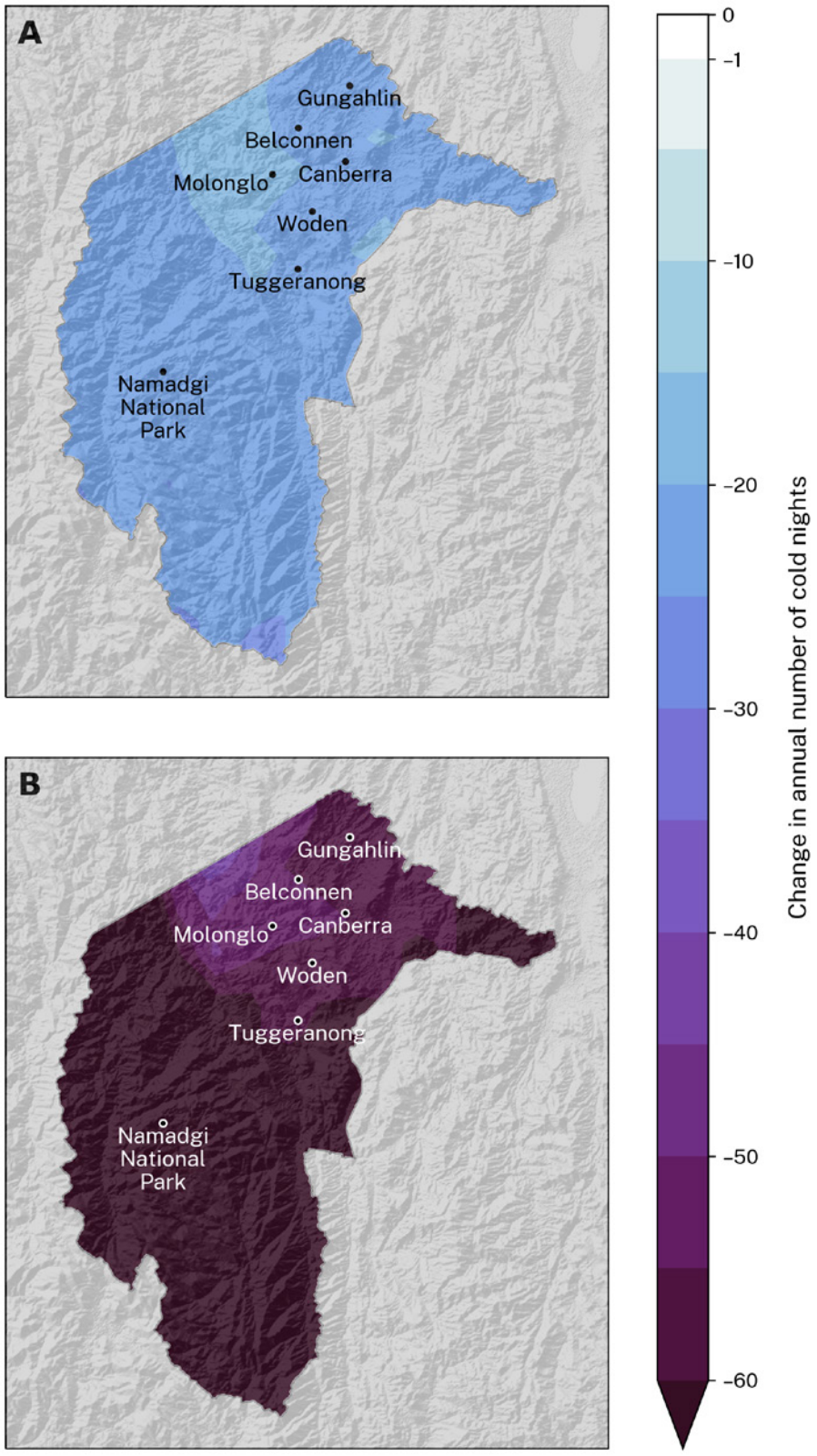


Figure 7. Projected change in annual number of cold nights by 2090 for the ACT under A) a low-emissions scenario and B) a high-emissions scenario



Rainfall

Rainfall may slightly decrease but remain variable

Climate change will influence rainfall patterns and the total amount of rainfall that the ACT receives. These changes may have widespread impacts on water security, agricultural productivity and native species' reproductive cycles.

The ACT has experienced rainfall extremes in recent decades, with significant impacts on communities, infrastructure and natural ecosystems.

Modelling rainfall is more difficult than modelling temperature due to the complexities of the weather systems that generate rain. NARCliM projections capture a range of plausible climate futures under the 2 emissions scenarios, including wet and dry outcomes. This means that rainfall is inherently more variable in the NARCliM projections than temperature, and the full range of rainfall projections should be taken into account. This can be explored further on the AdaptNSW Interactive Map.

Annual rainfall across the ACT averages about 740mm.[2] Rainfall is highest in the mountainous south-west, which experiences on average more than 1200mm per year. Rainfall is lowest for Canberra, which experiences around 600mm per year.[3] Annual rainfall is generally uniform throughout the year across the ACT, except for alpine regions of Namadgi National Park, which experience slightly more rainfall in winter and spring. The driest year on record was 2019, with an average of only 520mm across the region.[2]

Projections

This snapshot provides data on average rainfall change and does not provide data on rainfall extremes and the impacts of climate change on flooding.

The ACT is expected to experience a slight drying trend in average rainfall throughout this century (Figure 8). Changes to average rainfall will occur in all seasons, with the most notable changes expected in spring (Table 5).

By 2090, average spring rainfall is projected to decrease by approximately 17% under a low-emissions scenario and by 22% under a high-emissions scenario.

Under a high-emissions scenario, average spring rainfall could decrease by 22% across the ACT.

Average autumn, winter and summer rainfall is projected to change by 16% or less across the region by 2090 under both a low-emissions scenario and a high-emissions scenario. Refer to the Interactive Map for further seasonal information.

Table 5. Projected change to average rainfall – ACT

	2050		2090	
	Low-emissions	High-emissions	Low-emissions	High-emissions
Annual	**–8.7%** (–18.9% to +13.0%)	**–13.9%** (–34.7% to +1.3%)	**–9.9%** (–25.2% to +15.1%)	**–12.9%** (–37.0% to +18.1%)
Summer	**–6.9%** (–24.3% to +40.6%)	**–16.5%** (–37.5% to +35.4%)	**–15.6%** (–37.1% to +57.6%)	**–10.4%** (–46.6% to +57.7%)
Autumn	**–11.2%** (–28.4% to +13.4%)	**–10.9%** (–44.8% to +23.6%)	**–7.8%** (–26.4% to +11.4%)	**–6.8%** (–34.4% to +29.4%)
Winter	**–7.5%** (–21.9% to +23.3%)	**–10.6%** (–29.8% to +17.3%)	**+0.9%** (–26.1% to +41.2%)	**–11.5%** (–28.5% to +46.6%)
Spring	**–9.9%** (–26.7% to +17.7%)	**–16.8%** (–28.2% to –4.7%)	**–16.6%** (–29.6% to +14.0%)	**–21.8%** (–43.1% to +15.9%)

The bold number is the ensemble average for the period. Underneath the average is the ensemble range.

Figure 8. Historical and projected change to average rainfall – ACT

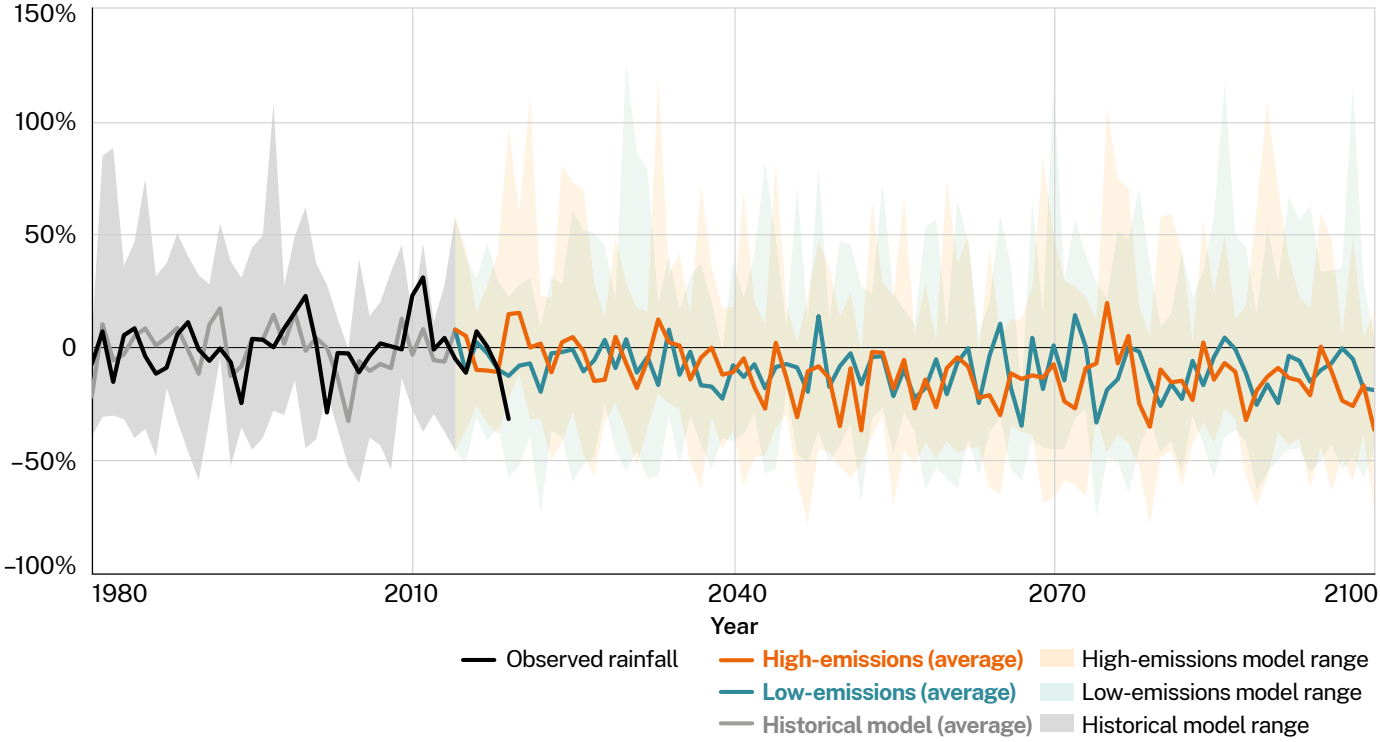
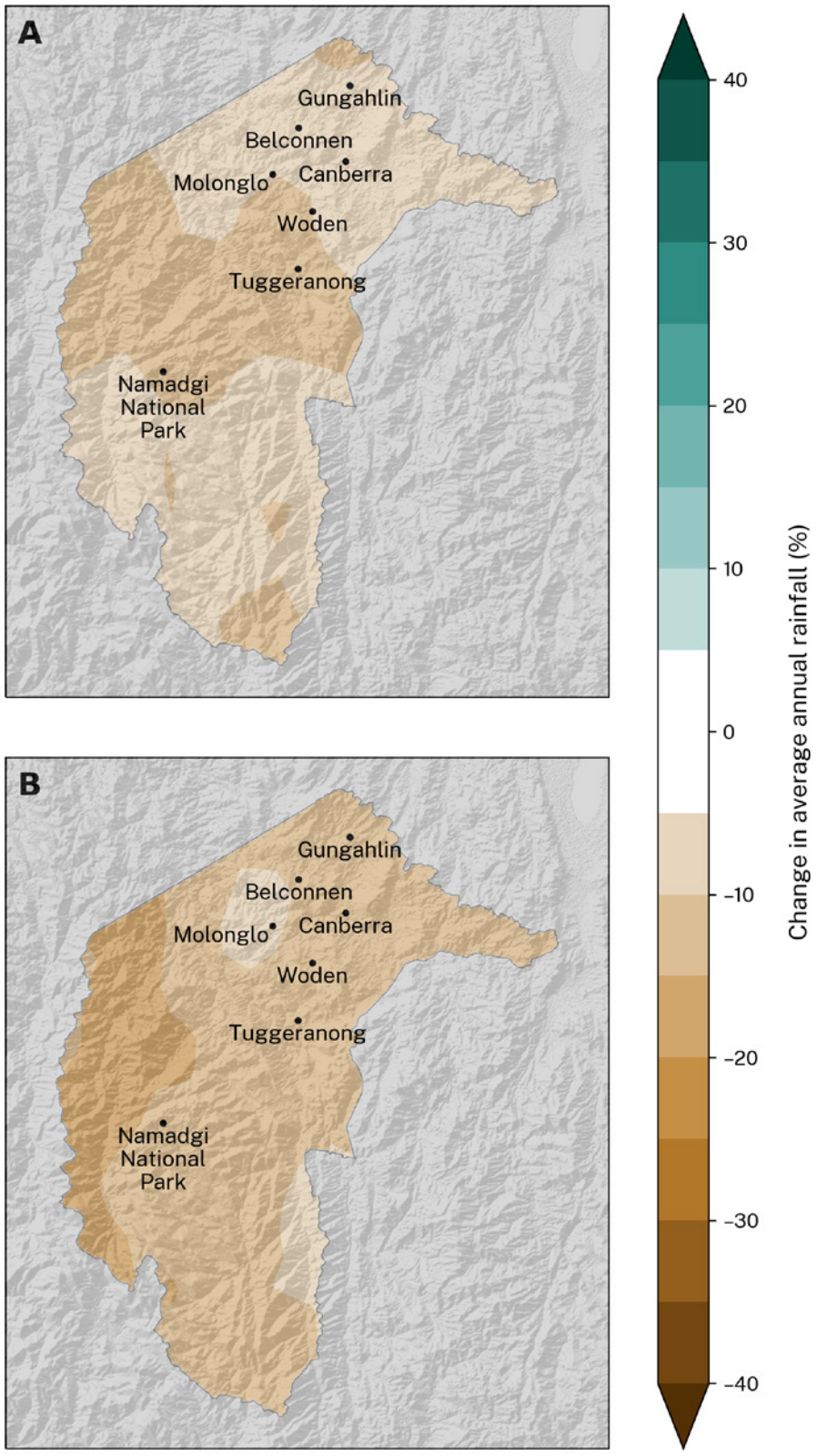


Figure 9. Projected change to average rainfall by 2090 for the ACT under A) a low-emissions scenario and B) a high-emissions scenario



Severe fire weather

Severe fire weather will increase

The Forest Fire Danger Index (FFDI) represents an estimate of fire weather risk. The FFDI is calculated from temperature, relative humidity and wind speed, as well as a number representing fuel dryness.

Severe fire weather (FFDI greater than 50) is most likely in summer and spring. Fire weather was the strongest determining factor of house loss during the Black Summer bushfires.[4] On average, the ACT experiences 0.3 days per year of severe fire danger days.[2] The number of severe fire danger days is generally low across the region, though the southern part of urban Canberra is at greater risk of bushfires due to its proximity to Namadgi National Park. The record annual number of severe fire danger days occurred in 2019 with approximately 3.4 days on average across the region, including 3 days recorded at Tuggeranong station and 10 days at the Canberra Airport station.[3]

Fire weather was the strongest determining factor of house loss during the Black Summer bushfires.[4]

FFDI was monitored by weather stations across NSW and the ACT until the introduction in 2022 of the Australian Fire Danger Rating System. FFDI is used in this snapshot as it can be calculated using the NARCliM projections, whereas data used by the Australian Fire Danger Rating System cannot. FFDI also provides a long history of data and gives context to the NARCliM projections.

Projections

The number of severe fire weather days will increase in the ACT by 2050 under a high-emissions scenario, with an even greater increase projected by 2090 under a high-emissions scenario (Table 6). The number of severe fire weather days is projected to increase during spring and summer, with the largest increase in summer.

By 2090, areas of Canberra's urban fringe could experience more than triple the number of severe fire weather days under a high-emissions scenario.

Increases to severe fire weather days are projected to occur across some areas of the ACT (Figure 11). The greatest increases are projected to occur for areas on Canberra's urban fringe, with only small increases projected for higher elevation areas of bushland, such as Namadgi National Park. By 2090, Gungahlin is projected to experience 0.7 additional severe fire weather days per year under a low-emissions scenario and 2.7 additional severe fire weather days per year under a high-emissions scenario. A high-emissions scenario is projected to more than triple Gungahlin's baseline period average of 1.2 severe fire weather days per year. Similarly, the number of severe fire weather days for Molonglo on Canberra's western urban fringe could more than triple under a high-emissions scenario.

Table 6. Projected increase in average annual number of severe fire weather days – ACT

2050		2090	
Low-emissions	High-emissions	Low-emissions	High-emissions
0.2 days (−0.4 to 0.7 days)	**0.6 days** (0.1 to 1.2 days)	**0.3 days** (−0.3 to 1.0 days)	**1.3 days** (0.1 to 2.9 days)

The bold number is the ensemble average for the period. Underneath the average is the ensemble range.

Figure 10. Historical and projected change to annual number of severe fire weather days – ACT

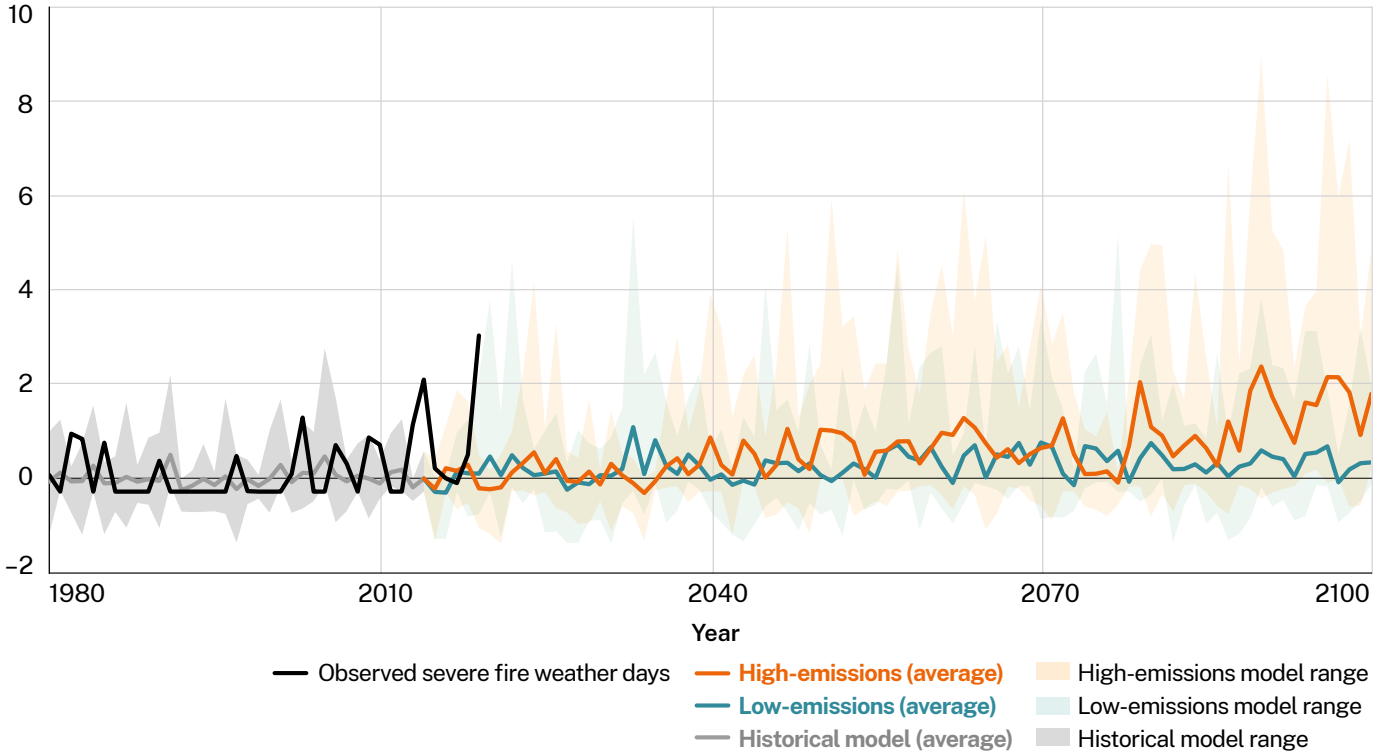
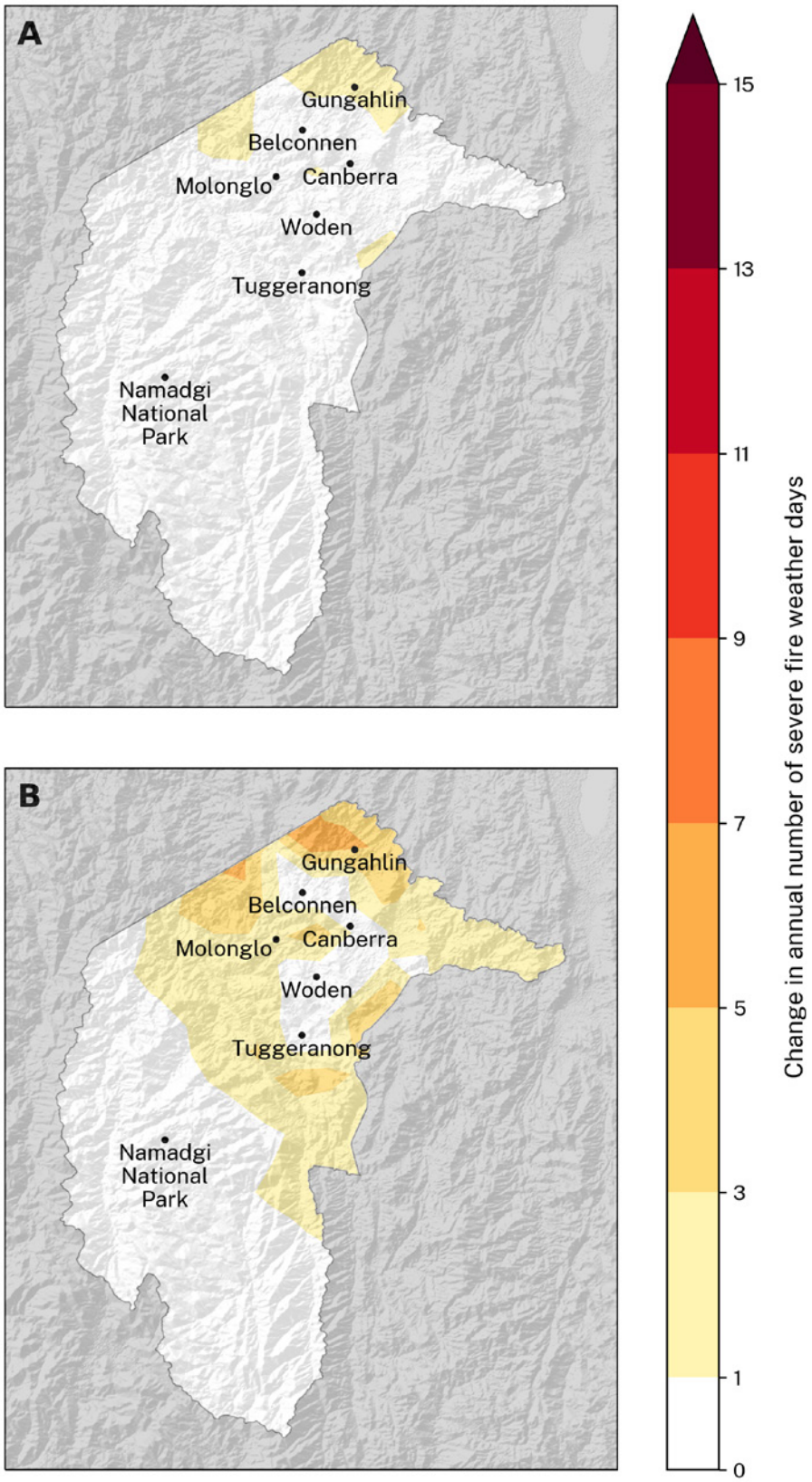


Figure 11. Projected change to annual number of severe fire weather days by 2090 for ACT under A) a low-emissions scenario and B) a high-emissions scenario



Climate change impacts on ACT

Climate change is already impacting the ACT, particularly through increased temperatures and increased severe fire weather. Climate change will continue impacting a variety of important environment, economic and cultural values across the region.

Impacts on water security

Increased rainfall variability from climate change is also predicted to have significant impacts on the ACT, particularly under a high-emissions scenario. While 2021–2023 provided above-average water resources to the ACT, the projected long-term trend is reduced and more variable water resources. 2019 was a particularly dry year with river flows more than 80% lower than the long-term average. In February 2020, total water storage dropped below 50% for the first time since 2013 when the enlarged Cotter Dam was constructed.[5] Increased rainfall variability may further impact water security of the ACT.

Impacts on biodiversity

Increased rainfall variability from climate change could also negatively impact important biodiversity values of the ACT. For example, the distribution of *Sphagnum bogs* in the internationally significant Ginini Flats Ramsar site may contract, as they exist at the hottest and driest margins of their range in Australia.[6] Reduced water flows may also increase cyanobacterial blooms, reducing biodiversity and community recreational use of lakes and waterways.

Bushfires

The ACT experienced significant impacts during the 2019–2020 bushfire season. The Orroral Valley fire burned around 86,562 hectares of land, including approximately 40% of the entire ACT, 80% of Namadgi National Park and 22% of the Tidbinbilla Nature Reserve.[7] The fires directly impacted cultural heritage sites, public access to roads, threatened species and erosion risk across both National Parks and affected infrastructure assets in adjacent rural land.[8] Severe fire danger days that create the underlying conditions for large-scale bushfires are expected to become more common in the future for the ACT, particularly under a higher-emissions scenario.

References

[1] Long-term temperature record – webpage

[2] About Australian Gridded Climate Data maps and grids – webpage

[3] Bureau of Meteorology Station Data – webpage

[4] Price et al. 2020, Probability of house destruction. Theme 3A. People and Property Impacts, *Bushfire Risk Management Research Hub* for the NSW Bushfire Inquiry 2020 – webpage

[5] Icon Water Limited 2023, 'Icon Water Annual Report 2022-23', Canberra

[6] EPSDD 2017, 'Ginini Flats Wetland Complex Ramsar Site Management Plan', *Environment, Planning and Sustainable Development Directorate,* Canberra

[7] Black Summer bushfires, ACT, 2020 – webpage

[8] Orroral Valley bushfire impact report – webpage

Climate action and information

Climate action

The NARCliM projections for the low-emissions scenario and the high-emissions scenario highlight the stark difference in climate change impacts that will be experienced under each scenario. The differences provide a reminder of the required action across the world to reduce emissions, and the importance of the ACT playing its part through meeting the ACT Government's ambitious, legislated target of net zero emissions by 2045. Find out more about what the ACT Government is doing to mitigate and adapt to climate change here.

The NARCliM projections highlight the importance of taking action to adapt to the impacts of climate change.

For more resources on reducing emissions and adapting to the impacts of climate change, visit AdaptNSW and the the ACT Government's Every Day Climate Choices website.

Information

NARCliM projections are delivered with support from: the ACT, South Australian, Victorian and Western Australian governments; National Computational Infrastructure; Murdoch University; and the University of New South Wales. Detailed information on the methodology and application of the projections can be found on the AdaptNSW website.

Climate change information in this snapshot is delivered under the ACT Government's partnership in the NARCliM project led by the NSW Government.

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