CLIMATE CHANGE ACROSS THE LIMESTONE COAST

RAINFALL

TEMPERATURE

EXTREME HEAT

FIRE RISK

SEA LEVEL RISE

CLIMATE ANALOGUES

OBSERVED CHANGES



General downward trend in annual median rainfall since 1906

Significant declines in April to October rainfall. Rainfall at Keith at this time of year has declined by 8% over the period 1988-2017 compared to 1907-1987



Average temperatures in the Limestone Coast region have already increased by approximately 1°C over the past 50 years



From 1981 to 2010. temperatures rose above 35°C for 21 days per year, and above 40°C for 4 days per year for Keith



Increased frequency and intensity (fire danger rating 'severe')

The fire season is lengthening - starting about 1 month earlier since 2000

At Naracoorte, numbers of days with Forest Fire Danger Index (FFDI) equal to or greater than 50 (severe, extreme or catastrophic fire days) has increased from 8 per year to 13 per year since 1998



Sea levels are rising around the Australian coastline, and rates of rise have increased in recent

In our region, total sea level rise since 1982 is 7.6cm - an average rate of rise of 1.1mm/ year for 1982-1999, and 3.5mm/year from 2000-2017

Using annual average rainfall and maximum temperature, climate projections can match the modelled future climate of locations in this region with the current climate experienced in other locations

By 2050, Keith's climate is projected to be more like the current climate of Streaky Bay and Kadina while Mount Gambier will experience a climate more similar to Penola

By 2090, Keith will be more similar to Cobar and Walgett in western NSW and Mount Gambier will be more similar to Perth

FUTURE CLIMATE PROJECTIONS

Increasing trends in intensity of heavy rainfall events

Decreasing trends in average rainfall in summer, autumn and spring

By 2050, annual median rainfall are projected to decline by between 4.8% and 7.9% compared with the baseline period 1986-2005

Average maximum temperatures are projected to increase 1.4°C by 2070

Warmer summer, warmer autumn, warmer winter and warmer spring are expected By 2050, the number of days over 35°C is projected to increase by 33-50%, and the number of days over 40°C by 88-125%

By 2070, the number of days over 35°C could increase to 31 days per year

The number of days per year with a 'severe' or higher fire danger rating increases by 19-27% by 2030, and by 36%-55% by 2090

24cm by 2050, and 33-40cm 2100

Sea level is projected to rise 22by 2070, with further rises to a total of 80cm to 1.1m likely by

* RCP4.5 and RCP8.5



















