Symbol	Climate variable / hazard	Description of change	Change in 2040	Change in 2090
Temperature				
	Annual mean	Seasonal mean temperatures are projected to increase across the Otago region.	0.5-1.5°C	1.5-3.5°C
	Minimum and maximum	Both minimum and maximum temperatures are expected to increase across the Otago Region.	Maximum temperatures increase by 1.5°C. Minimum temperatures increase between 0-1.0°C.	Maximum temperatures increase by 3.5°C. Summertime mean maximum temperature are projected to increase up to 5°C in central and western Otago. Minimum temperatures are also projected to increase throughout the region by up to 2°C.
	Number of hot days(>25 °C)	Central Otago and inland areas are likely to experience significant increases in the number of extreme hot days. Coastal and southern parts of Otago are likely to experience slight increases in the number of extreme hot days.	6-10 more extreme hot days for parts of Central Otago. Dunedin is projected to observe a slight increase to 0.5 extreme hot days.	30-40 more extreme hot days in parts of Central Otago. 10-30 more hot days per year for remaining inland areas. Increasing of 0.1-4 days for coastal and southernmost parts of Otago.
	Number of cold nights / frost (<0 °C)	The number of cold nights resulting in frost are expected to decrease across the region, with larger reductions projected for further inland areas.	10-15 fewer frost days for inland areas.	20-40 fewer frost days per year for inland areas.
Rainfall				
	Annual mean	Annual rainfall is expected to increase across the region.	0-10% annual increase.	Increases of 10-20% for the majority of Otago with smallest increases expected near Ranfurly 0-5%.
	Extreme rainfall events	Extreme, rare rainfall events are likely to increase in intensity in Otago.	From 8% higher for a 1:100 year 1-hour duration rainfall event.	Up to 35% higher for a 1:100 year 1-hour duration rainfall event.
	Snowfall	The number of snow days are also projected to reduce, with the greatest reductions projected to occur in the coldest, mountainous areas.	The number of snow days is likely to decrease between 0-15 days.	The number of snow days is likely to decrease between 0-20 days.

	Number of dry days	The number of dry days are likely to decrease near the coast and parts of Central Otago, with the remaining parts of Otago experiencing increases. Seasonally fewer winter dry days for western Otago and more summer dry days for western and inland parts of Otago.	Decreases in annual dry days of 1-4 days are projected for coastal and some central parts of Otago, with increases of 2-8 more dry days per year for many remaining parts of Otago.	Decreases in annual dry days of 2-6 days are projected for coastal and some central parts of Otago, with increases of 2-10 more dry days per year for many remaining parts of Otago.
	Flooding	In general Otago is projected to experience an increase in Mean Annual Flood (MAF). This is consistent with increased mean annual rainfall.	Between-5 to 100% reductions in MAF are projected to occur in parts of the Catlins, North Otago and Wanaka / Hawea area. With the remaining areas projected to increase by up to 50-100% in some places.	Generally greater than 20% increase across whole region with some areas over 100% increase in MAF.
Sea level rise				
	Coastal Inundation	Storm surges, waves, winds and the frequency and intensity of storms will also be affected by climate change. These, combined with sea level rise generate higher extreme water levels which are variable along the coast of Otago.	Mean SL is projected to increase by 0.21m across New Zealand.	Up to 0.9-1.2m increase in SL
	Groundwater	Groundwater projections are highly variable across the region. Detailed information is currently not available for future timeframes.		
Extreme weather				
	Wind	Daily mean wind speed is projected to decrease about the eastern coast of Otago, and increase for inland areas about Central Otago and the Southern Lakes	Inland areas about Clyde, Cromwell and Queenstown are projected to observe an increase in extreme wind of 4-6%. Coastal areas likely to experience a decrease of 0-4%.	Inland areas about Clyde, Cromwell and Queenstown are projected to observe an increase in extreme wind of 6-12%. Southern coastal areas likely to experience an increase of 0-2% with northern coastal areas experiencing a decrease of 0-4%.

For further detail and definitions of climate change projections for Otago refer Appendix B.