



Meteorological Hazards

This fact sheet contains information about weather-related hazards present in the greater Wellington Region. It is closely related to the climate change fact sheet.

What are meteorological hazards?

Meteorological hazards are weather-related events, such as floods, droughts, landslides, tides, sea level rise, wind, snow, frost, extreme temperature, hail, lightning and fire.

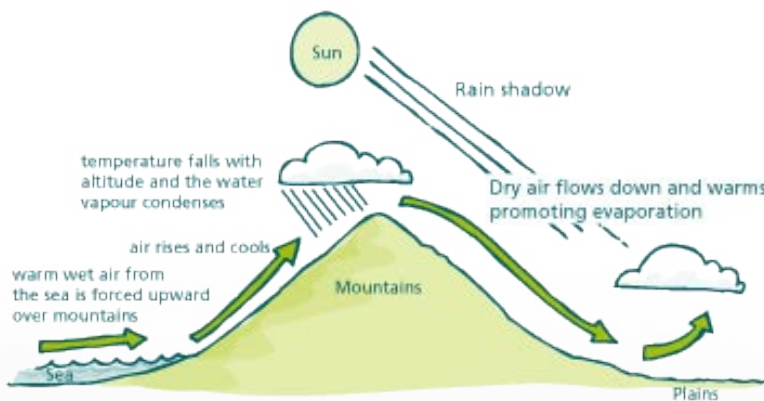
What is the climate of the greater Wellington Region?

The greater Wellington Region has some pretty wild weather. The Cook Strait and the rugged local topography have a large effect on our climate.

We have strong, blustery winds. Wind speeds of 110km/hr and gusts of 150km/hr have been recorded at the entrance to the Wellington Harbour and gales of 183km/hr have been recorded at Castlepoint.

Records show that the strongest winds are usually felt in late spring. The most common wind directions around the western Region are northerly (most frequently between October and January) and southerly (most frequently between May and August). This is because the air is channelled by the hills and ranges around Wellington. The most common wind direction for the Wairarapa is from the northeast.

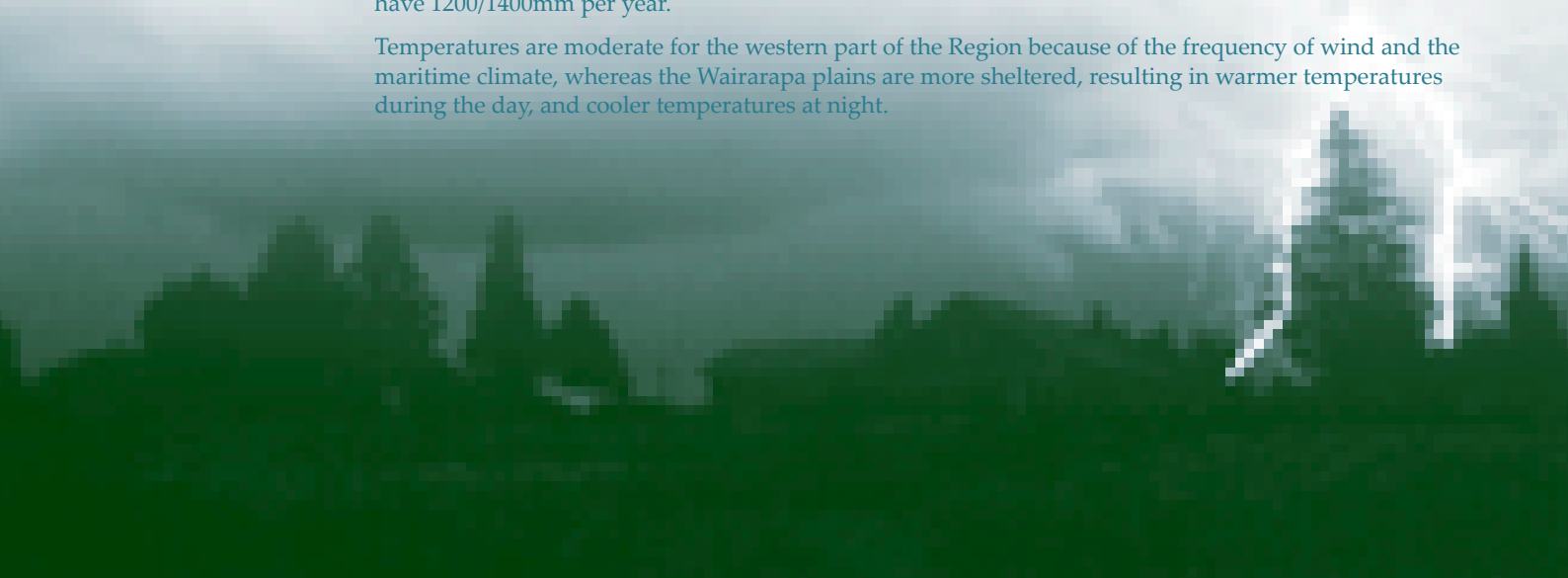
We have big seas in Wellington because of the open ocean directly out of our harbour entrance and our proximity to the Cook Strait. On Waitangi Day 2002, there was a storm with waves of 13 metres, the highest recorded in over 25 years.



The Orographic Rainfall Effect

The west of the Region has more rainfall than in the east. This is because of mountain ranges such as the Tararuas and the Rimutakas, and also because we are exposed to the open ocean to the south. Wairarapa has an average of about 800mm of rainfall per year and areas west of the Tararuas and the Rimutakas have 1200/1400mm per year.

Temperatures are moderate for the western part of the Region because of the frequency of wind and the maritime climate, whereas the Wairarapa plains are more sheltered, resulting in warmer temperatures during the day, and cooler temperatures at night.



What are the weather related hazards in the greater Wellington Region?

CAUSES	EFFECTS (climate change can increase these effects)
Rainfall/storms	• Floods • Landslides • Erosion • Increased threat to lifelines and services • Pest and plant eradication problems • Lightning
High temperatures	• Drought • Suitability for crops affected • Pest and plant eradication problems • Increased wildfire risk
Wind	• Damage to lifelines, services and homes/buildings



Open downwind windows to relieve pressure on the roof

What should you do?

During a storm

Open a window on the side of the building away from the wind. This will relieve pressure on the roof.

Secure outdoor furniture and rubbish bins.

Put tape across large windows to prevent them shattering.

Don't go outside or drive around unless absolutely necessary.

During a flood

Stay inside unless told to evacuate.

Move valuables to higher places.

Do not go into floodwaters unless absolutely necessary.

Listen to the radio for advice.

During a drought or heat wave

Look after your own safety.

Stay in a cool place and keep hydrated.

Conserve water for essential use only.

Do not light fires as they may get out of control.



Masterton flooding (courtesy of the Wairarapa Times Age)

Further reading:

NIWA, 2002. *Meteorological Hazards and the Potential Impacts of Climate Change in the Wellington Region - a Scoping Study*. Report prepared for the Wellington Regional Council. Copies are available from the Wellington Regional Council website (www.gw.govt.nz) or a printed version may be requested.

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