

What is 'Severe Weather'?

- It's weather that has the potential to seriously disrupt your day and could cause harm to you, your property or your possessions.
- The term is used to cover 'heavy rain', 'heavy snow', 'strong winds', and 'thunderstorms' and we use specific criteria and thresholds to define when these events are severe.
- MetService will issue a warning if criteria is expected to be reached.

How far in advance is severe weather forecast?



Typically, MetService will issue advice six days out from potential severe weather through our 'Severe Weather Outlook'. This applies to rain, wind and snow. The **Outlook** is a 'heads up' that although we can see something coming, there is some uncertainty about what might happen and where.

As an event gets closer and we can be more specific about severe weather timing, location and intensity, we will issue a **'Watch'** (with colour-code Yellow) or a **'Warning'** (with colour-code Orange or Red depending on the severity of the event). See overleaf for an explanation of Watches and Warnings.

Thunderstorms are different. They form incredibly quickly and are less predictable days in advance so our 'heads up' Outlook for a thunderstorm is, at best, 36 hours before the event. Because a severe thunderstorm has the potential to have significant impact and disruption, a Thunderstorm Warning will always be Red.

Criteria for Severe Weather



Heavy Rain

Widespread (broad-scale) impacts over an area of at least 1000km²

More than 50mm in six hours
or
More than 100mm in 24 hours



Strong Wind

Widespread (broad-scale) impacts over an area of at least 1000km²

Gales with a minimum mean speed of 90km/h
or
Frequent gusts exceeding 110km/h



Thunderstorms

Affects a localised area (small-scale) for a short period of time.

Rain of 25mm/h or more
or
Hailstones 20mm in diameter or larger
or
Wind gusts of 110km/h or stronger
or
Tornados with windspeeds of 116km/h or stronger



Heavy Snow

Widespread (broad-scale) impacts over an area of at least 1000km²

Snowfall below: 1000m in the North Island, South Canterbury and Otago; 500m in the rest of the South Island.

Snow depth of 10cm within six hours
or
Snow depth of 25cm within 24 hours

What size is 1000km²? It is about the size of a box drawn around the outside of Lake Taupo.

Severe Weather

- what is it and how does MetService keep you informed?



What does this mean?

What should I do when I see this?

When does MetService issue these for broad scale rain, wind or snow events?

When does MetService issue these for localised thunderstorm events?

	Outlook	Watch - Yellow	Warning - Orange	Warning - Red
				
	We can see bad weather coming in the next 3-6 days and a Watch or Warning may be required.	We know bad weather is coming and it will be significant but not serious enough to reach 'warning' criteria, <i>or</i> Bad weather is getting closer and we are more confident about what might happen but there is still some uncertainty.	We are confident about what is going to happen, and where, and the impacts of this weather will be significant.	This event is among the worst that we get – it will have significant impact and it is possible that a lot of people will be affected. This could be like Cyclone Gita in Feb 2018 or the Dunedin/Clutha floods of Nov 2018.
	Keep an eye on things and monitor for updates. There is no immediate threat but you should be aware of what could be coming. Start planning as appropriate.	Stay alert to the forecast and be prepared for bad weather to disrupt your day. Things might get worse, a warning is possible, and you might be affected. Continue monitoring/planning, start taking action as appropriate.	Severe weather is coming and it's going to be serious. Take action now as appropriate to protect property, people and animals. Follow the advice of emergency services and designated authorities.	An extreme weather event is coming. It will cause significant disruption to you and your community. Take action now to protect property, people and animals. Follow the advice of emergency services and designated authorities.
	Issued daily for events in the coming 3-6 days.	Issued as required for events expected in the next 48-72 hours, <i>or</i> Issued for events expected in the next 24 hours where uncertainty is high.	Issued as required for events expected in the next 12-36 hours, <i>or</i> Issued for events expected in a few days where confidence is high.	Issued as required for events expected in the next 12-36 hours, <i>or</i> Issued for events expected in a few days where confidence is high.
	Issued twice every day forecasting out 6-36 hours.	Issued for events expected in the next 0-12 hours.	not applicable	Issued for events expected in the next 60 minutes when a severe thunderstorm is detected within 180km of a radar and is trackable.