

## **Intergovernmental Panel on Climate Change IPCC Fourth Assessment Report**

The Intergovernmental Panel on Climate Change has now released its fourth comprehensive assessment of climate change.

In addition to a Synthesis Report, there are three component reports covering:

- Working Group I Report: The Physical Science Basis <http://ipcc-wg1.ucar.edu/wg1/wg1-report.html>
- Working Group II Report: Impacts, Adaptation, and Vulnerability <http://www.ipcc.ch/SPM13apr07.pdf> (full report available shortly)
- Working Group III Report: Mitigation of Climate Change [http://www.mnp.nl/ipcc/pages\\_media/AR4-chapters.html](http://www.mnp.nl/ipcc/pages_media/AR4-chapters.html)

Of particular importance and relevance to New Zealand councils is the Working Group II Report on the expected impacts, our vulnerabilities and adapting to climate change. This report contains a chapter dedicated to the Australia/New Zealand region, which outlines the impacts on both environmental and human systems, our capacity to adapt and our vulnerabilities. It builds upon information in past IPCC reports and reflects new information and knowledge gained since the third assessment report in 2001.

Some key findings for New Zealand include:

- Impacts due to extreme weather events are likely to increase, becoming more frequent and more intense.
- Water security problems are very likely to increase in parts of eastern New Zealand, with projected increases in the frequency and severity of droughts.
- Coastal communities are very likely to have increased risk from sea-level rise, and increases in the severity and frequency of storms and coastal flooding.
- For the first 1-2°C global temperature increase, benefits are likely in some areas e.g. improved agricultural, horticultural and forestry productivity, reduced winter illness, reduced winter energy demand, and increased hydroelectric potential.
- Scope for adaptation is large in most sectors and we must start preparing and adapting now.
- A portfolio of adaptation and mitigation measures has potential to reduce the risks from climate change impacts.
- Residual risks are likely for many natural ecosystems, water, coasts, built infrastructure.