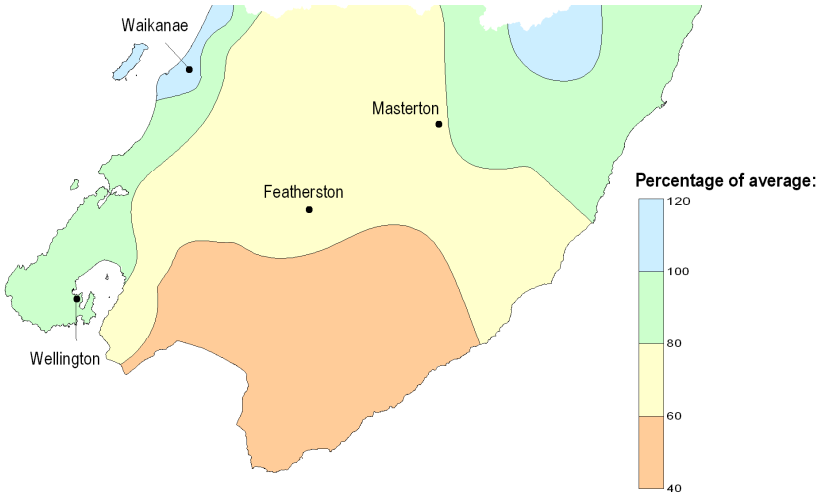
September 2009 hydrological summary

Environmental Monitoring and Investigations Department

Rainfall during September

Rainfall during September 2009 followed a similar pattern to the previous month, with slightly above-average rainfall on the Kapiti Coast, and below average rainfall in the Hutt Valley, Wairarapa Valley and southern Wairarapa. The September rainfall total was about average, or just below average, in northeastern Wairarapa, Wellington City, and Porirua.



Rainfall during September as a percentage of the long-term average for the month

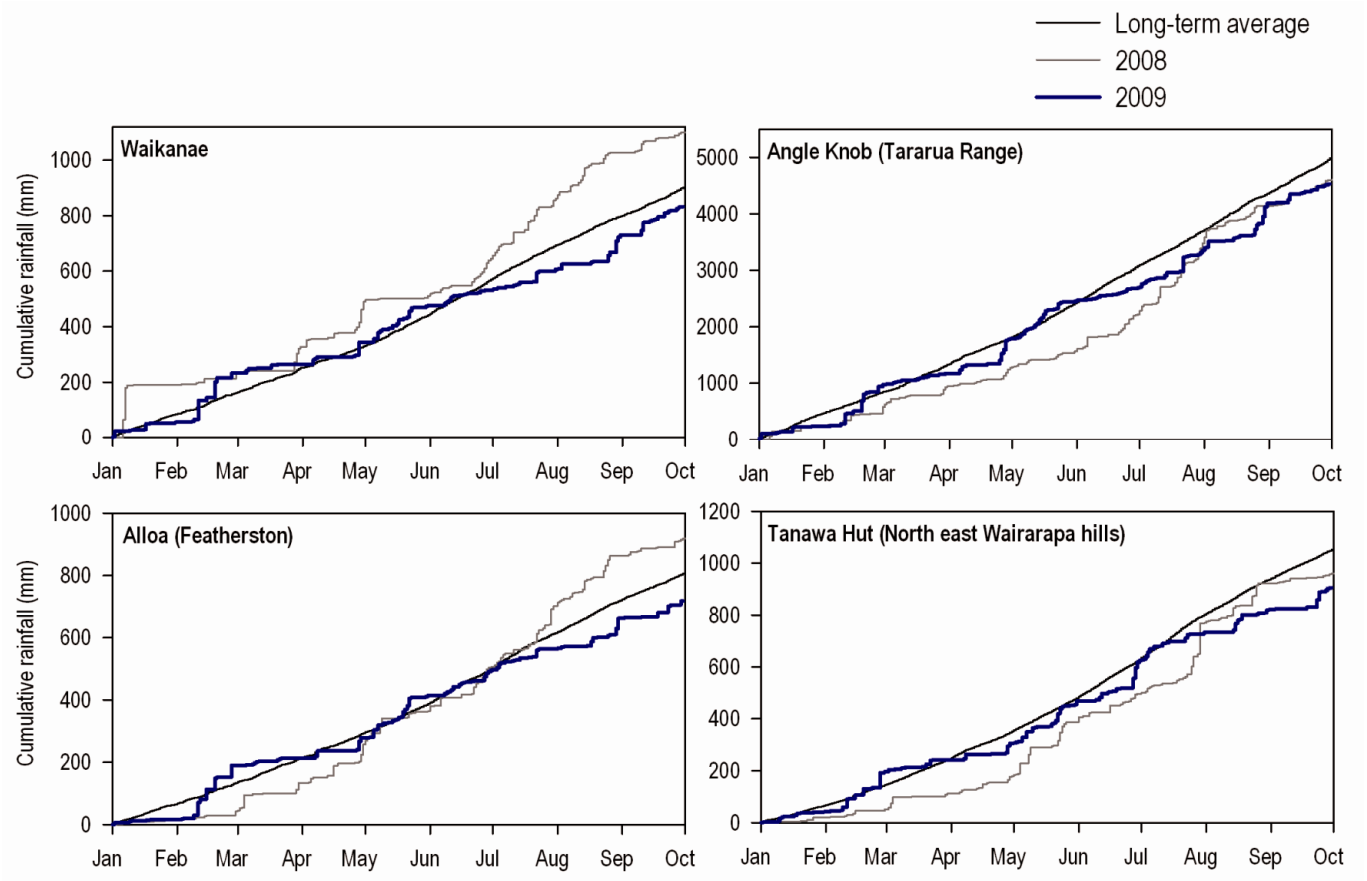
During the first half of September, generally settled weather conditions prevailed over the Wellington region. The second half of the month saw periods of strong northwesterly winds, and a deep wintery low from the south brought snow to the Tararua and Rimutaka ranges on 24 September. There were no significant rainfall events during the month.

Rainfall in the year to date

Rainfall for 2009 to the end of September was, overall, below average throughout the Wellington region, with totals generally about 10% lower than normal. Some parts of the region had below average rainfall for the four months from June to September 2009 inclusive, particularly areas that tend to receive most of their rainfall during southerly weather conditions (e.g., Wainuiomata and southern Wairarapa).

Year-to-date rainfall statistics for selected monitoring sites in the Wellington region

	Rainfall during September at monitoring site (mm)	Rainfall for 2009 to end of September (mm)	Percentage of long-term average for year to date
Waikanae	109	832	92%
Karori	95	895	94%
Kaitoke	108	1473	87%
Wainuiomata	94	1283	85%
Featherston ('Alloa')	56	715	89%
NE Wairarapa ('Tanawa Hut')	86	906	87%
Tararua Range ('Angle Knob')	407	4530	92%



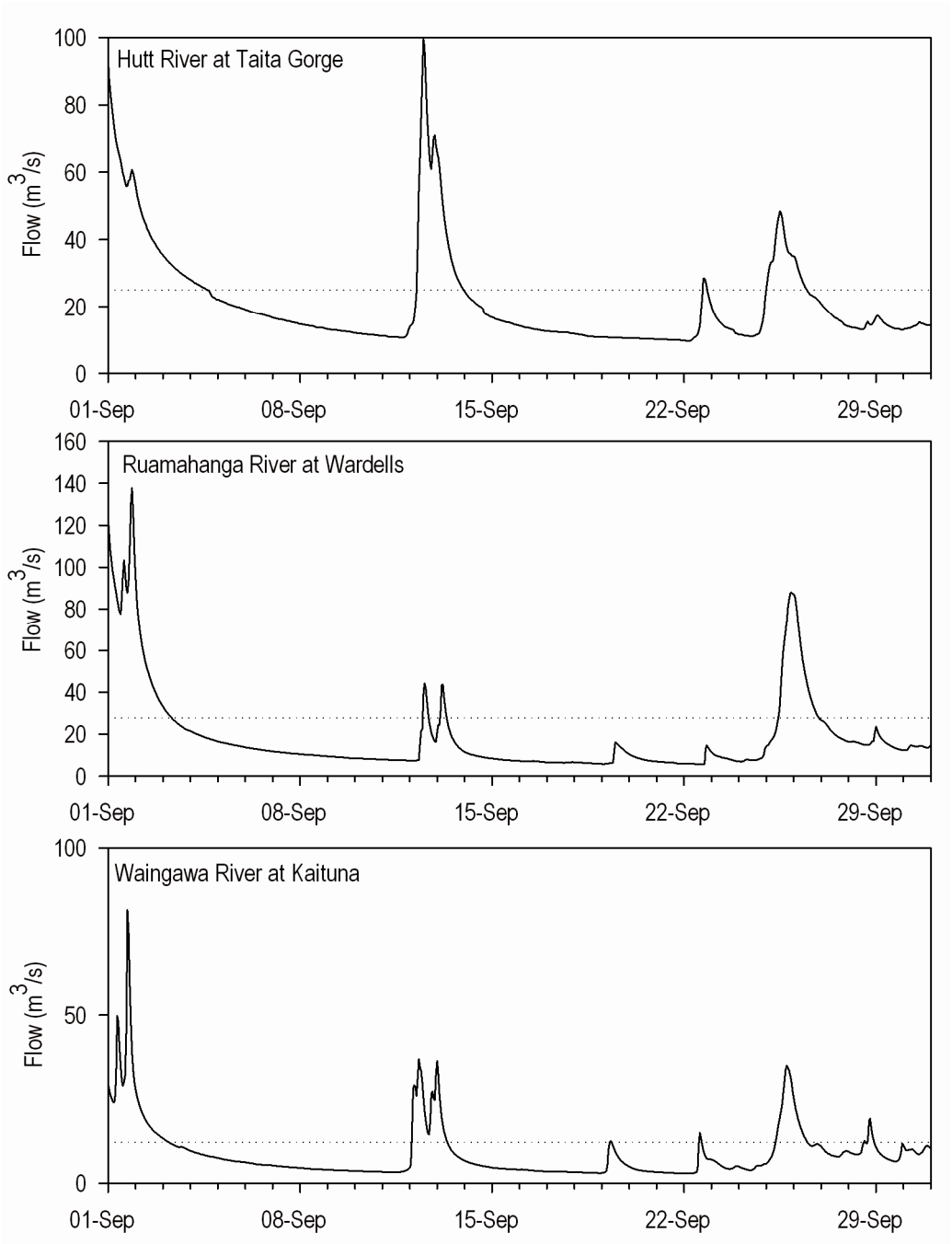
Cumulative annual rainfall at selected sites in the Wellington region

River flows during September

River flows were below average for September in most parts of the Wellington region. Flows were particularly low for the time of the year in the Ruamahanga River. Below average rainfall in the Wairarapa Valley, its western foothills, and the eastern Tararua Range meant that there were less 'freshes' compared to usual for the time of the year. Due to the lack of storms, there were no significant floods and no river level floodwarning alarms were triggered during September.

River flow statistics for September 2009 at some of Greater Wellington's flow monitoring locations

	Average river flow for September 2009	Percentage of long-term average
Waikanae River at Water Treatment Plant	n/a	n/a
Akatarawa River at Cemetery	5.2 m^3/s	94%
Mangaroa River at Te Marua	n/a	n/a
Hutt River at Taita Gorge	21.2 m^3/s	85%
Wainuiomata River at Manuka Track	0.89 m^3/s	100%
Waingawa River at Kaituna	9.0 m^3/s	74%
Waiohine River at Gorge	19.9 m^3/s	72%
Ruamahanga River at Wardells	18.6 m^3/s	67%
Ruamahanga River at Waihenga	64.2 m^3/s	60%



River flows recorded during September 2009 at selected Greater Wellington monitoring locations. The dotted lines indicate long-term average flow for September

Climate outlook

NIWA's climate outlook for October to December favours about average rainfall, river flows and soil moisture in Wellington and Wairarapa. The El Nino that is present is weak, and is not expected to have a large impact on spring and early summer rainfall. See NIWA's climate outlook at **www.niwa.co.nz/our-science/climate/publications/all/seasonal-climate-outlook**.

More information

This summary is based on data from selected monitoring locations in the Wellington region. Greater Wellington monitors rainfall, river flows, groundwater levels and soil moisture at many locations that may not be mentioned in this summary report. Maps of site locations and up-to-date data can be found at **www.gw.govt.nz/monitoring**.

Disclaimer: This report is based on data that have not yet been quality checked. In particular, flow data may be subject to change following adjustment of rating curves. Greater Wellington accepts no responsibility for any interpretation or use of the provisional data in this report.