The Hawkesbury-Nepean Valley

The Hawkesbury-Nepean Valley (the valley) covers 425 square kilometres of floodplain. It falls mainly within four fast growing local government areas in Western Sydney: Penrith City, Hawkesbury City, The Hills Shire and Blacktown City. It includes Penrith, Richmond, Windsor and many surrounding suburbs.

The valley is prone to rapid and deep flooding, with a long history of damaging and sometimes disastrous floods. The area also has a constrained evacuation road network and low levels of community awareness of flood risk.

The Insurance Council of Australia considers that the valley has the highest single flood exposure in NSW, if not Australia.

An unusual valley – the ‘bathtub’ effect

Most river valleys tend to widen as they approach the sea. This is not the case in the Hawkesbury-Nepean River. Narrow sandstone gorges between Sackville and Brooklyn create natural choke points. The floodwaters from the five major tributaries back up and rise rapidly, causing deep and widespread flooding across the floodplain. It is much like a bathtub with five taps turned on, but only one plug hole to let the water out.
Significant floods in the valley

The valley experienced its largest flood in living memory in November 1961 soon after Warragamba Dam was built. The river reached around 14.5 metres above normal river height at Windsor.

The largest flood since European settlement in the valley happened in June 1867. The river reached around 19 metres above normal river height at Windsor. This flood was described as a huge inland sea that stretched from Pitt Town to Kurrajong and from Riverstone to the Blue Mountains. Windsor, Richmond and Pitt Town became small flood islands.

Large floods don’t happen often, but when they do they have very significant impacts on the community and the economy.

What is the NSW Government doing?

The NSW State Emergency Service (SES) is responsible for flood and storm operations in NSW. The SES has a specific Flood Plan in place for the valley.

The NSW Government is also delivering Resilient Valley, Resilient Communities – the Hawkesbury-Nepean Flood Risk Management Strategy (the Flood Strategy). This strategy aims to reduce the flood risk in the valley, and includes a plan to raise the height of Warragamba Dam for flood mitigation, and activities to help communities prepare for floods.

For more information about the Flood Strategy visit www.insw.com/flood-strategy

What do you need to do?

There will always be flooding in the Hawkesbury-Nepean Valley. If you live or work in the valley, understand your flood risk and be prepared. Road evacuation is the primary measure to protect lives in a flood emergency.

Find out more about how to prepare for a flood on the NSW SES website www.ses.nsw.gov.au

For emergency help in floods and storms call 132 500. In life-threatening emergencies call 000 (triple zero).