



# *Flood Protection Works*

## *Opahu Stream, Central Lower Hutt*

Large areas of Hutt City are contained within two relatively narrow valleys – Hutt and Wainuiomata – with rivers and streams draining water from the surrounding hills and ranges out to the sea.

In most wet weather situations, surface water is drained away from commercial and residential properties through a substantial network of stormwater pipes and drains. However, during extremely heavy rainfall, the capacity of the network to carry this stormwater can be exceeded, and this leads to flooding and ponding in low-lying areas.

The Hutt River still represents the major flood risk to Hutt City with the potential for damage of up to \$700m. In recent years the Council has worked with the Greater Wellington Regional Council, which has overall responsibility for the Hutt River, to complete the floodplain management plan. An \$80m major upgrade is underway.

There is a perception that we have been experiencing more frequent extreme weather events in recent years. Hutt City Council recognises that this is of concern to residents and businesses and so has put in place both short and long-term strategies to improve the capacity of the stormwater system.

### *Hutt City's stormwater renewal and upgrade programme*

From around 1990, Council began a programme to progressively replace and upgrade the entire stormwater system as pipes reached the end of their useful lives. The programme uses much higher stormwater design standards than those that in the past were generally accepted as best practice.

For example, whereas the old system was built to cope with one in five year weather events, the new standard requires that the system be capable of withstanding one-in-ten year and one-in-fifty year standards, depending on the level of risk in particular areas. It is also important to note that alternative flow paths are now required in all new developments, to safely carry away floodwater when the capacity of the stormwater pipes is exceeded.

## *Opahu Stream catchment*

Two extreme rainfall events in February and August 2004 caused flooding in the central Hutt City area. The Opahu Stream is the main drainage channel for much of the central Hutt City area. It originates in the Boulcott area and discharges into the Hutt River, adjacent to the end of Whites Line West. A floodgate on the outlet stops the Hutt River flowing back up the stream when it is in flood and water levels in the river are higher than water levels in the stream.

### *Short-term strategies for Opahu Stream area*

Hutt City Council is increasing both stormwater pipeline and intake capacity as part of a programme dealing with flooding 'hotspots'. This programme has been accelerated since the two major flood events that occurred in 2004.

An ongoing and extensive programme of works is aimed at increasing the capacity of the stream. Recent works include widening the central channel, which has increased the capacity of the stream from Woburn Road to Whites Line West.

A high flow bypass stormwater pipeline has been installed across the Hutt Recreation Ground and the culvert size has been increased in the Woburn Road, Wai-iti Crescent and the Whites Line West area.

### *Longer-term strategies*

Council is now addressing the discharge of the stream into the Hutt River as this cannot occur when the floodgates are closed. This results in the stream backing up behind the floodgates when the river is higher than water levels in the stream. Council intends to construct a pump station to address this issue.

The design of the pumping station is currently being carried out and will cost \$85,000.

Construction costs have been budgeted at \$2 million in the 2005/06 year, with the Greater Wellington Regional Council contributing a share.

As well as overcoming the problem of the stream backing up behind the floodgates when the Hutt River is in flood, the pumping station will improve flows in the stream at other times by lowering water levels in the lower sections of the stream.

### *For further information:*

Phone: 570 6666 or  
[http://www.huttcity.info/council/services/emo/bad\\_flood.html](http://www.huttcity.info/council/services/emo/bad_flood.html)

**Hutt River Floodplain Management Plan** is available from the Greater Wellington Regional Council,  
Phone: 0800 496 734 or  
[www.wrc.govt.nz/fp/hutt/htm](http://www.wrc.govt.nz/fp/hutt/htm)