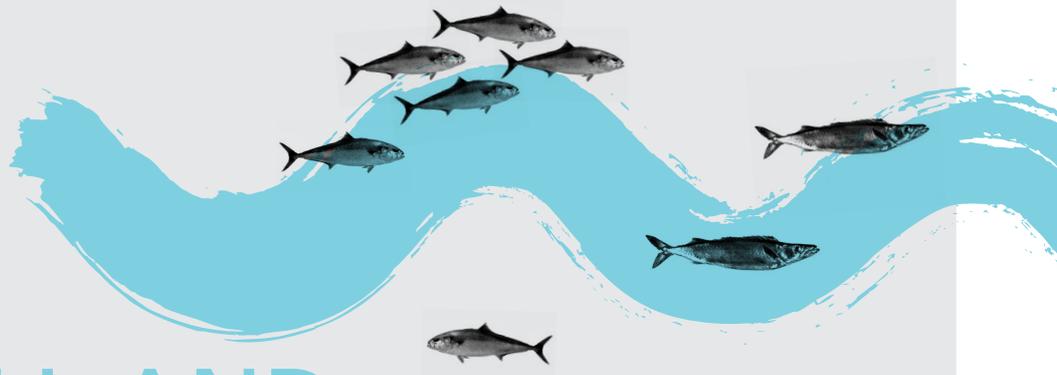




## WELLINGTON HARBOUR AND HUTT VALLEY

GREATER WELLINGTON  
REGIONAL COUNCIL  
ENVIRONMENT REPORT CARDS  
2016/17



# RAINFALL AND WATER LEVELS



greater WELLINGTON  
REGIONAL COUNCIL  
Te Pane Matua Taiao



## Why do we monitor rainfall and water levels?

Gathering information on rainfall and water levels in the region's rivers, lakes and aquifers is essential so that we can:

- Develop sound water management policies, including determining how much water can safely be taken from a water body
- Detect changes and trends, and whether these can be related to such things as climate change
- Provide information during Civil Defence emergencies such as floods or periods of drought.

## What did the 2016/17 data show?

Conditions throughout the year were much wetter than normal. Many months saw high rainfall totals, particularly November 2016 and April 2017. Overall spring was the wettest season with most places receiving 1½ -2 times the normal amount of rainfall.

Two wet weather events of note occurred during the year:

- On 15 November 2016 (the day after the Kaikoura earthquake) intense rainfall resulted in surface flooding, slips and road closures. The Hutt, Mangaroa and Wainuiomata rivers and the Waiwhetu Stream all flooded and the Waiwhetu Stream overflowed into neighbouring properties.
- On 5 April 2017 ex-tropical cyclone Debbie brought intense rainfall to the area overnight. Gauges in Berhampore, Hataitai and Te Papa recorded rainfall totals of 94mm, 64mm and 74mm in just 12hrs. The Owhiro Stream burst its banks and threatened neighbouring houses.

Unsurprisingly, river levels were also above average for much of the year, with significant highs recorded in November and April.



## Did you know...

Rainfall has been monitored at Karori since 1878 and at Wainuiomata since 1889!

## In Wellington and the Hutt Valley we monitor:



**Rainfall**  
at 24 sites



**River levels**  
at 16 sites



**Groundwater levels**  
at 15 sites



**Tidal levels**  
at 1 site

# Highlights from the 2016/17 data

Location	2016/17 total rainfall (mm)	Percentage of normal
Kaitoke	2690	118
Akatarawa	3145	139
Mangaroa	1828	116
Lower Hutt	1386	115
Khandallah	1486	123
Karori	1322	113
Newtown	1335	131
Wainuiomata Reservoir	1888	96
Pencarrow Lakes	1143	134

## Rainfall at Wainuiomata Reservoir



## How many times were flood warnings activated?



### Akatarawa River

Flood warnings were activated **7 times**.



### Hutt River

Flood warnings were activated **5 times**.

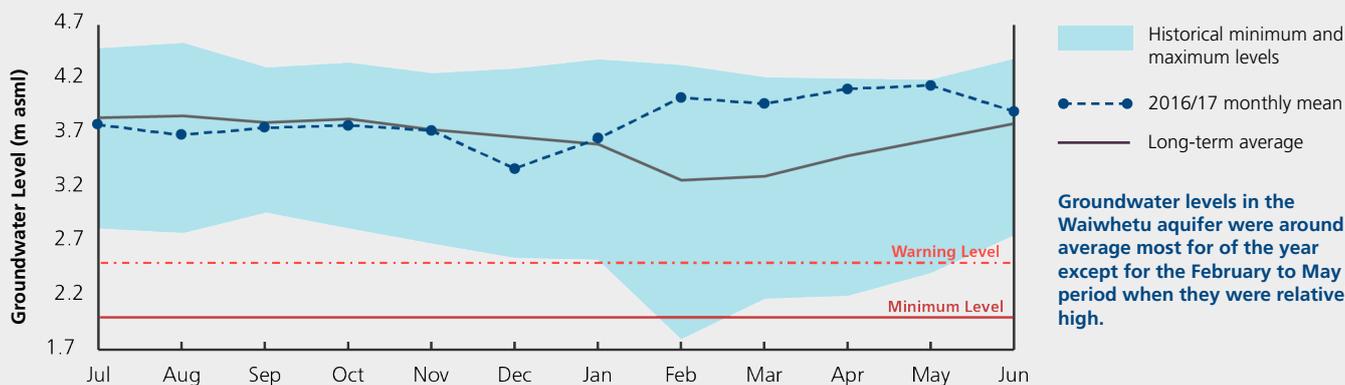


### Wainuiomata River

Flood warnings were activated **2 times**.

The 2016/17 year was much wetter than normal, particularly in the months of November and April.

## Groundwater levels in the Waiwhetu Aquifer



Groundwater levels in the Waiwhetu aquifer were around average most for of the year except for the February to May period when they were relatively high.



Adding insult to injury... On 15 November 2016, just one day after the Kaikoura earthquake, intense rainfall causes flooding in many parts of Wellington and the Hutt Valley.

## For further information:

Full details of the 2016/17 monitoring results can be found in our Hydrology Annual Data Report published online at [www.gw.govt.nz/Annual-monitoring-reports](http://www.gw.govt.nz/Annual-monitoring-reports)

To view or download environmental monitoring data go to <http://graphs.gw.govt.nz>