

## WATER WATCH

Issue No. 154

### May 2005 for the attention of Water Supply Managers and Councillors

#### Water supply

Water use during May was fairly typical of a winter month, with only modest demand (average 148 ML/day) and relatively little variation in daily use (range 141-156ML).

#### Rainfall and source levels/flows

Last month was generally wetter than the long-term May average, with 65% more rain than normal at Kaitoke, 30% more in the Orongorongo Valley and 47% more at Karori. In contrast, rainfall at Wainuiomata was 17% below average.

The average flow rates for the Wainuiomata and Hutt Rivers last month were slightly above their respective long-term averages (6% and 10% - see table).

The average level of the Hutt aquifer (4.19 metres) was a little higher than the average May level (3.80 metres) since full-time production ceased at Gear Island (Oct. 1999).

Storage in the Stuart Macaskill Lakes was 74% of maximum at month-end.

#### Weather outlook

NIWA's outlook (May to July) for the south-west of the North Island predicts normal or above normal levels of rainfall (40% probabilities for each) and normal river flows (40% probability) as most likely outcomes. The probability of low rainfall remains at 20%, while the probability of low river flows has increased from 25% to 30% since the April-June outlook.

Mean air temperature is now strongly expected to be above normal (60%); where the outlook last month was normal (40%) to above normal (40%). Available soil moisture

is most likely to be average (40% probability), but the chance of below-average soil moisture has increased slightly since last month. For more detail see [www.niwa.co.nz/ncc/cu/2005-05/outlook](http://www.niwa.co.nz/ncc/cu/2005-05/outlook).

#### Treatment plants

Repairs continued to the raw water pipeline between Orongorongo intake weir and the pipe tunnel to Wainuiomata treatment plant. A section of embankment that the pipe passed through was washed away in late March. Production from Wainuiomata treatment plant was entirely from the Wainuiomata catchment area during May.

The Wainuiomata treatment plant was turned off due to poor river conditions on three occasions during May, totalling around 54 hours. Te Marua treated water principally or entirely from the Stuart Macaskill Lakes on 16 days.

The electric motor on one of the three Wellington pumps at Waterloo treatment plant is currently being refurbished. We do not anticipate this situation causing distribution problems at present levels of water use.

If you have any queries please contact me (Tel: 04 384 5708).

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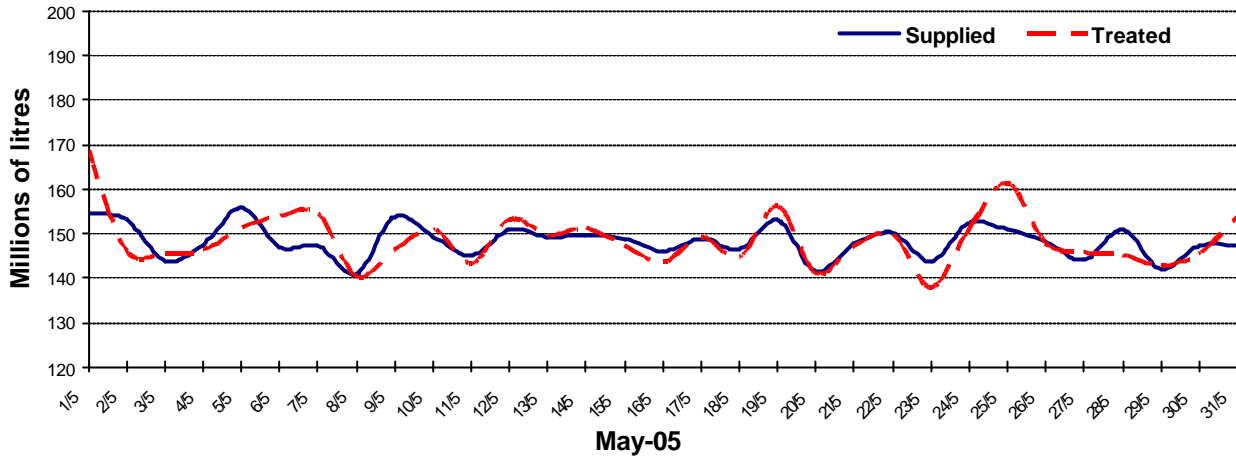
<b>Water source and catchment data</b>			
Source: Hilltop, except 'A', supplied by GWW Operations	May 2005	April 2005	Average of long-term May data
<b>Average flow rate (m<sup>3</sup>/sec) or level (metres)</b>			
Hutt River at Kaitoke <sup>A</sup>	8.99 m <sup>3</sup> /s	4.22 m <sup>3</sup> /s	8.15 m <sup>3</sup> /s <sup>1</sup>
Wainuiomata River at Manuka Track	0.89 m <sup>3</sup> /s	0.57 m <sup>3</sup> /s	0.84 m <sup>3</sup> /s
Aquifer at McEwan Park	4.19 metres	3.95 metres	3.80 metres <sup>2</sup>
<b>Total rainfall in water catchments</b>			
Kaitoke Strainer House	230 mm	102 mm	140 mm
Wainuiomata Reservoir	173 mm	129 mm	209 mm
Orongorongo Swamp	302 mm	138 mm	232 mm

1: Record 1968-2003. 2: Data for 2000-2004 only, since Gear Island WTP ceased full-time production. Full-time use of Gear Island resulted in lower average level data from McEwan Park, due to its proximity to the abstraction point. May 2005 data is raw.

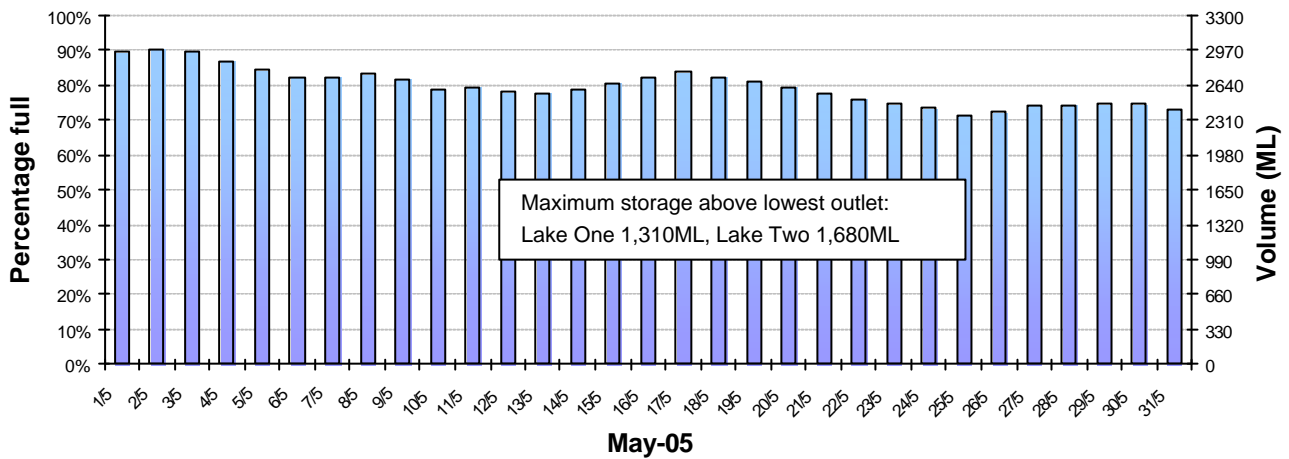
## Production and supply figures for May 2005

Day/date	Supplied	Storage	Treated	Te Marua	Wainui	Waterloo	Gear Island
Sun, 01/05/05	154.6	14.2	168.7	76.0	22.7	70.0	0.0
Mon, 02/05/05	153.2	-7.1	146.1	69.6	13.0	63.5	0.0
Tue, 03/05/05	143.9	1.6	145.5	72.2	0.0	73.3	0.0
Wed, 04/05/05	147.6	-1.3	146.3	74.3	17.1	54.9	0.0
Thu, 05/05/05	155.9	-4.7	151.2	72.0	28.5	48.7	2.0
Fri, 06/05/05	147.0	7.0	154.0	73.1	32.6	48.3	0.0
Sat, 07/05/05	147.3	7.2	154.5	73.0	33.9	47.6	0.0
Sun, 08/05/05	140.9	-0.4	140.5	67.7	31.9	40.9	0.0
Mon, 09/05/05	153.8	-7.5	146.3	66.8	30.2	49.3	0.0
Tue, 10/05/05	149.4	1.8	151.1	73.1	30.9	47.1	0.0
Wed, 11/05/05	145.1	-1.7	143.4	66.7	32.0	44.7	0.0
Thu, 12/05/05	151.0	2.3	153.3	75.0	31.1	47.2	0.0
Fri, 13/05/05	149.3	0.5	149.8	72.3	29.2	48.3	0.0
Sat, 14/05/05	149.7	1.5	151.3	72.6	26.6	52.1	0.0
Sun, 15/05/05	148.9	-1.5	147.4	69.6	23.8	54.0	0.0
Mon, 16/05/05	146.1	-2.5	143.6	66.1	24.4	53.1	0.0
Tue, 17/05/05	148.9	0.3	149.2	51.1	29.8	68.3	0.0
Wed, 18/05/05	146.5	-1.8	144.8	48.0	32.6	64.2	0.0
Thu, 19/05/05	153.0	3.2	156.2	58.0	30.8	67.4	0.0
Fri, 20/05/05	141.5	-0.4	141.1	49.7	27.8	63.6	0.0
Sat, 21/05/05	147.6	-0.4	147.2	48.6	27.3	71.3	0.0
Sun, 22/05/05	150.2	-0.4	149.8	48.8	20.2	80.8	0.0
Mon, 23/05/05	143.7	-5.8	137.9	48.8	0.8	88.3	0.0
Tue, 24/05/05	152.4	-1.3	151.2	47.9	18.3	85.0	0.0
Wed, 25/05/05	150.9	10.6	161.5	56.7	31.6	73.2	0.0
Thu, 26/05/05	148.2	-0.3	147.9	67.0	22.1	58.8	0.0
Fri, 27/05/05	144.1	1.7	145.8	66.3	33.2	43.8	2.5
Sat, 28/05/05	150.8	-5.6	145.2	66.2	26.7	52.3	0.0
Sun, 29/05/05	142.1	0.8	142.9	65.0	14.4	63.5	0.0
Mon, 30/05/05	147.3	-1.9	145.5	63.2	7.7	74.6	0.0
Tue, 31/05/05	147.5	6.3	153.7	64.5	18.0	71.2	0.0
<b>Total</b>	<b>4598.5</b>	<b>14.6</b>	<b>4613.1</b>	<b>1990.1</b>	<b>749.2</b>	<b>1869.3</b>	<b>4.5</b>
<b>Average</b>	<b>148.3</b>	<b>0.5</b>	<b>148.8</b>	<b>64.2</b>	<b>24.2</b>	<b>60.3</b>	<b>0.1</b>

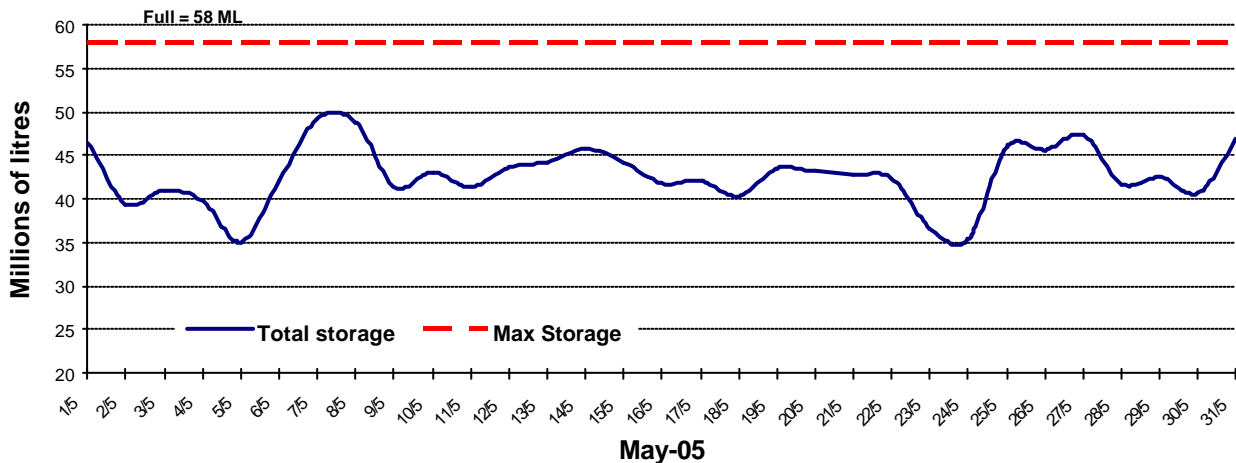
## Water produced/supplied



## Total storage - Stuart Macaskill Lakes



## Water stored in balancing reservoirs



Note: Daily reservoir balances are a snapshot at approximately 8.00 am. Balancing reservoirs are Ngauranga (20ML) and Haywards (18ML) and the WCC reservoir Macalister (20ML)

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