

## WATER WATCH

Issue No. 156

### July 2005

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

##### Water supply

The maximum day supply last month was 153 million litres (ML), while the average for the month was 145 ML/d. The July average day has remained fairly constant over recent years, being 145-146 ML in each year since 2001

##### Rainfall and source levels/flows

July was, like June 2005, generally drier than normal. Just 57% of the average July rainfall level was recorded at Wainuiomata Reservoir (53% in June). Orongorongo Swamp had 90% of normal rainfall (63% in June), but Kaitoke had 10% more rain than normal for the month (18% below normal in June).

Average flow rates for the Wainuiomata and Hutt Rivers last month broadly reflected the rainfall trend. The Wainui River averaged 62% of normal July flows, while the Hutt River was only about 4% below its normal flow rate.

The average level of the Hutt aquifer (4.21 metres) was a little higher than the average July level (4.19 metres) since full-time production ceased at Gear Island (Oct. 1999).

Storage in the Stuart Macaskill Lakes was 84% of maximum at month-end.

##### Weather outlook

NIWA's outlook (July to September) for the south-west of the North Island predicts 'normal' levels of rainfall (50% probability), river flows (45% probability) and available soil moisture (45% probability) as the most likely outcomes. The probability of low rainfall remains at 20% for the next three months, but probabilities for low river flows and low soil moisture have increased from 20% (June) to 30% and 35% respectively.

The probability of mean air temperatures being above normal over the forecast period has dropped back from 50% (June-August outlook) to 40%. Normal air temperatures are now just as likely as above-normal temperatures. For detail see [www.niwa.co.nz/ncc/cu/2005-07/outlook](http://www.niwa.co.nz/ncc/cu/2005-07/outlook).

##### Treatment plants

The raw water pipeline between the Orongorongo intake and the pipe tunnel to Wainuiomata treatment plant was reinstated on 4 July. The treatment plant was off due to unsuitable raw water conditions between Friday 15 July and Monday 18 July, for a few hours on 29 July, and again on 31 July.

Looking ahead, Wainuiomata treatment plant will be closed from 2 August to allow a possum control operation in the Wainui-Orongorongo catchment. The plant will then remain off until Regional Public Health is satisfied that it is safe to reopen.

Te Marua treated water principally or entirely from the Stuart Macaskill Lakes on 10 days.

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

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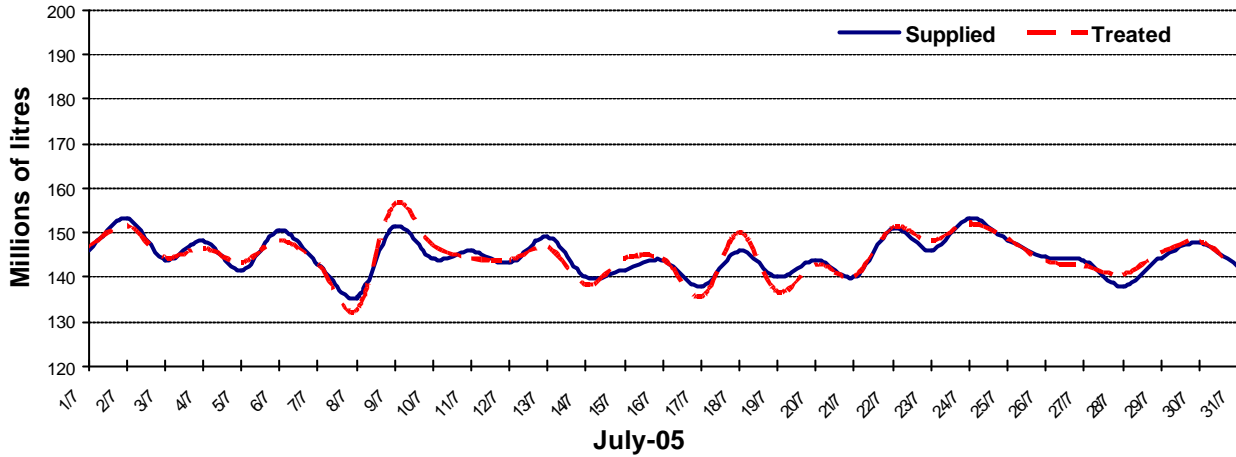
<b>Water source and catchment data</b>			
Source: Hilltop, except 'A', supplied by GWW Operations	July 2005	June 2005	Average of long-term July data
<b>Average flow rate (m<sup>3</sup>/sec) or level (metres)</b>			
Hutt River at Kaitoke <sup>A</sup>	9.66 m <sup>3</sup> /s	7.68 m <sup>3</sup> /s	10.03 m <sup>3</sup> /s <sup>1</sup>
Wainuiomata River at Manuka Track	0.87 m <sup>3</sup> /s	0.80 m <sup>3</sup> /s	1.39 m <sup>3</sup> /s
Aquifer at McEwan Park	4.21 metres	4.35 metres	4.19 metres <sup>2</sup>
<b>Total rainfall in water catchments</b>			
Kaitoke Strainer House	216 mm	185 mm	197 mm
Wainuiomata Reservoir	130 mm	112 mm	229 mm
Orongorongo Swamp	263 mm	174 mm	294 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.

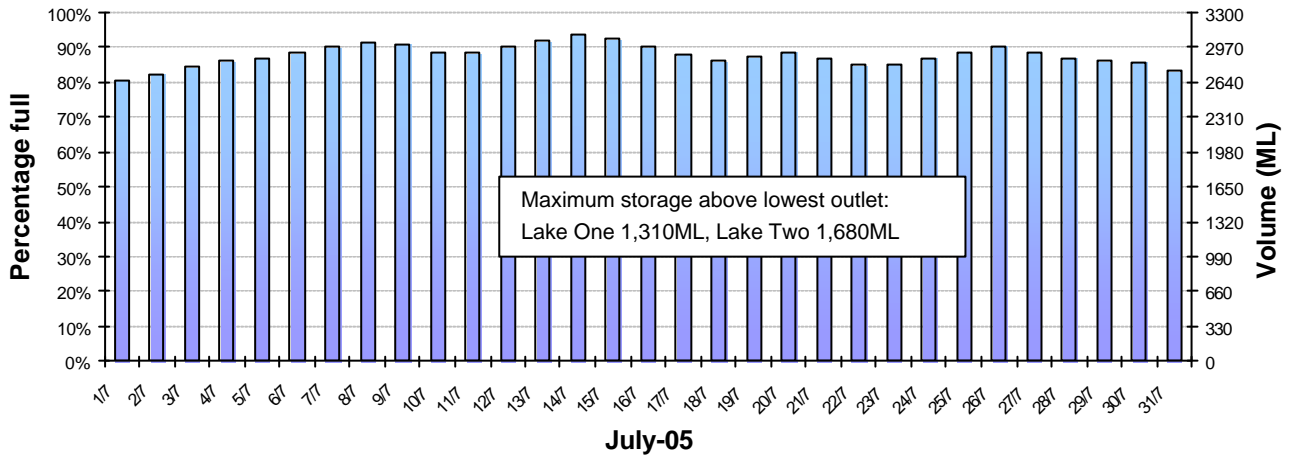
## Production and supply figures for July 2005

Day/date	Supplied	Storage	Treated	Te Marua	Wainui	Waterloo	Gear Island
Fri, 01/07/05	145.9	1.0	146.9	64.8	31.7	50.4	0.0
Sat, 02/07/05	153.2	-1.6	151.7	67.1	31.4	53.2	0.0
Sun, 03/07/05	144.0	0.6	144.6	64.7	30.0	49.8	0.0
Mon, 04/07/05	148.2	-1.6	146.6	63.0	26.6	57.0	0.0
Tue, 05/07/05	141.5	1.8	143.3	63.6	29.1	50.6	0.0
Wed, 06/07/05	150.5	-2.3	148.3	67.1	34.3	44.4	2.5
Thu, 07/07/05	143.0	0.0	143.0	59.4	20.3	63.3	0.0
Fri, 08/07/05	135.4	-2.9	132.5	56.2	33.9	42.3	0.0
Sat, 09/07/05	151.5	5.0	156.5	65.2	29.0	62.3	0.0
Sun, 10/07/05	144.1	3.0	147.1	64.8	23.7	58.6	0.0
Mon, 11/07/05	145.9	-1.5	144.4	64.5	24.3	55.6	0.0
Tue, 12/07/05	143.2	0.7	143.9	63.3	34.1	46.5	0.0
Wed, 13/07/05	149.1	-2.4	146.7	64.2	24.2	58.3	0.0
Thu, 14/07/05	140.0	-1.8	138.2	61.0	23.5	53.7	0.0
Fri, 15/07/05	141.6	2.5	144.1	69.2	1.2	73.7	0.0
Sat, 16/07/05	143.9	0.1	144.0	62.7	0.0	81.3	0.0
Sun, 17/07/05	137.8	-2.3	135.5	62.2	0.0	73.3	0.0
Mon, 18/07/05	145.9	4.1	150.1	68.7	15.4	66.0	0.0
Tue, 19/07/05	140.0	-3.3	136.7	60.6	22.1	54.0	0.0
Wed, 20/07/05	144.0	-1.0	142.9	66.8	22.0	54.1	0.0
Thu, 21/07/05	140.0	0.1	140.1	65.2	25.2	49.7	0.0
Fri, 22/07/05	150.9	0.3	151.2	67.6	26.0	57.6	0.0
Sat, 23/07/05	146.0	2.1	148.1	67.9	23.6	56.6	0.0
Sun, 24/07/05	153.3	-1.2	152.1	67.2	23.5	61.4	0.0
Mon, 25/07/05	148.4	0.2	148.6	63.5	25.1	60.1	0.0
Tue, 26/07/05	144.5	-0.9	143.6	62.4	24.8	56.4	0.0
Wed, 27/07/05	143.7	-1.1	142.7	62.6	25.8	54.3	0.0
Thu, 28/07/05	138.0	2.7	140.6	62.6	16.4	61.6	0.0
Fri, 29/07/05	144.4	1.1	145.5	63.3	19.5	62.7	0.0
Sat, 30/07/05	147.8	0.3	148.1	67.3	23.2	57.6	0.0
Sun, 31/07/05	142.5	-0.7	141.8	63.0	0.4	78.4	0.0
<b>Total</b>	<b>4488.0</b>	<b>1.2</b>	<b>4489.2</b>	<b>1991.6</b>	<b>690.3</b>	<b>1804.8</b>	<b>2.5</b>
<b>Average</b>	<b>144.8</b>	<b>0.0</b>	<b>144.8</b>	<b>64.2</b>	<b>22.3</b>	<b>58.2</b>	<b>0.1</b>

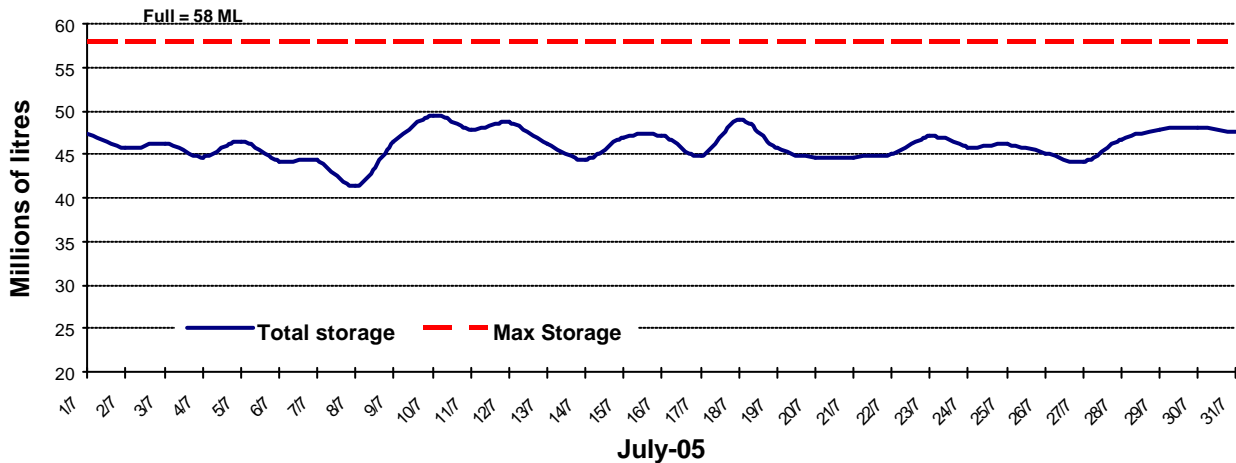
## Water produced/supplied



## 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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