Water Supply

September/October 2001

Operations Group
September/October 2001

Operations Group
Review of Operations for the Period Ended 31 October 2001

1. Items of Note

- The first two months of the rollover of the Water Services Agreement have resulted in a definite reduction in performance because of staff absenteeism and the anticipated drop in morale. It has been necessary to use subcontractors to ensure that performance standards are maintained at an acceptable level.

2. Water Quality

A total of 508 samples from trunk mains were tested for coliform organisms. None of these samples tested positive.

A total of 104 samples of treated water from treatment plants were tested for faecal coliforms. None of these samples tested positive.

Secchi disc water clarity in the Te Marua north lake varied between >2.80 m and 6.0 m, and in the south lake between 4.2 m and 6.0 m. These are considered satisfactory.

The dominant phytoplankton were as follows:

- North Lake: *Staurastrum, Oscillatoria, Cosmarium*
- South Lake: *Staurastrum, Cosmarium, Peridium*

Oscillatoria is a filter clogging algae when present in high concentrations. *Botrycoccus* often blooms in hard water lakes. *Asterionella* and *Peridium* produce fishy odours. *Cosmarium* and *Staurastrum* produce a grassy smell when abundant.

Dissolved oxygen (9.8-12.1 mg/L) was satisfactory.

pH values were satisfactory (7.10-7.60).

Giardia and *Cryptosporidium* results were as follows:

Te Marua

Lakes	)	No *Giardia*
	)	No *Cryptosporidium*
Intake	)	No *Giardia*
	)	No *Cryptosporidium*

Treated Water	)	No *Giardia*
	)	No *Cryptosporidium*

Wainuiomata

Treated Water	)	No *Giardia*
	)	No *Cryptosporidium*
Lower George Creek and George Creek south arm combined	)	Low *Giardia*
	)	Low *Cryptosporidium*
Orongorongo and Big Huia Intake combined	)	Low *Giardia*
	)	No *Cryptosporidium*
Wainuiomata intake	)	Low *Giardia*
	)	Low *Cryptosporidium*

Guidelines Criteria

0-10 oocysts = low
10-50 oocysts = medium
>50 oocysts = high

3. Supply Situation

The bi-monthly seasonal forecast for October/November 2001 issued by the Meteorological Service is as follows:

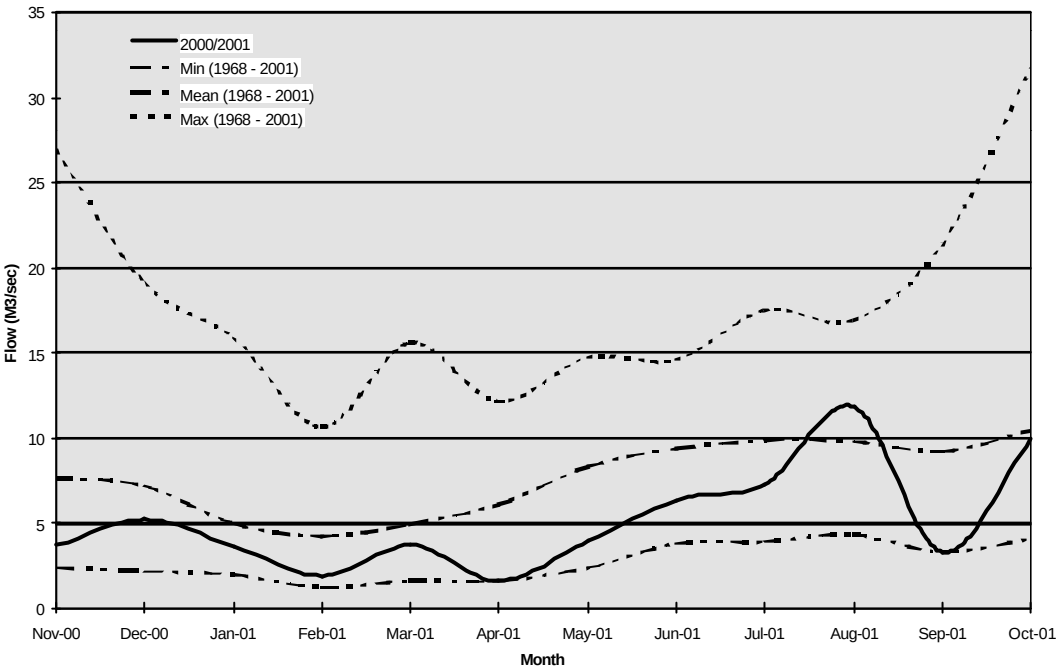
For Wellington

Rain:	Best chance in months for back to normal rain
Wind:	About normal
Temperature:	Continuing about to above normal
Sunshine:	Continuing above normal
Confidence:	Moderate

The number of rain events should work out to be near normal at around 6 per month by October. Indications are that the number of southerly events should be on the decrease, but that when one does arrive it should be noticeably chilly, and may even be followed by a frost. Between the rain events we expect several days with warm sunshine. Places with good direct exposure to the showers rolling in from the Tasman Sea are expected to get the highest rainfall. Since the sea surface temperatures in the Tasman are slightly warmer than normal, some of the showery bursts are likely to be squally with lightning.

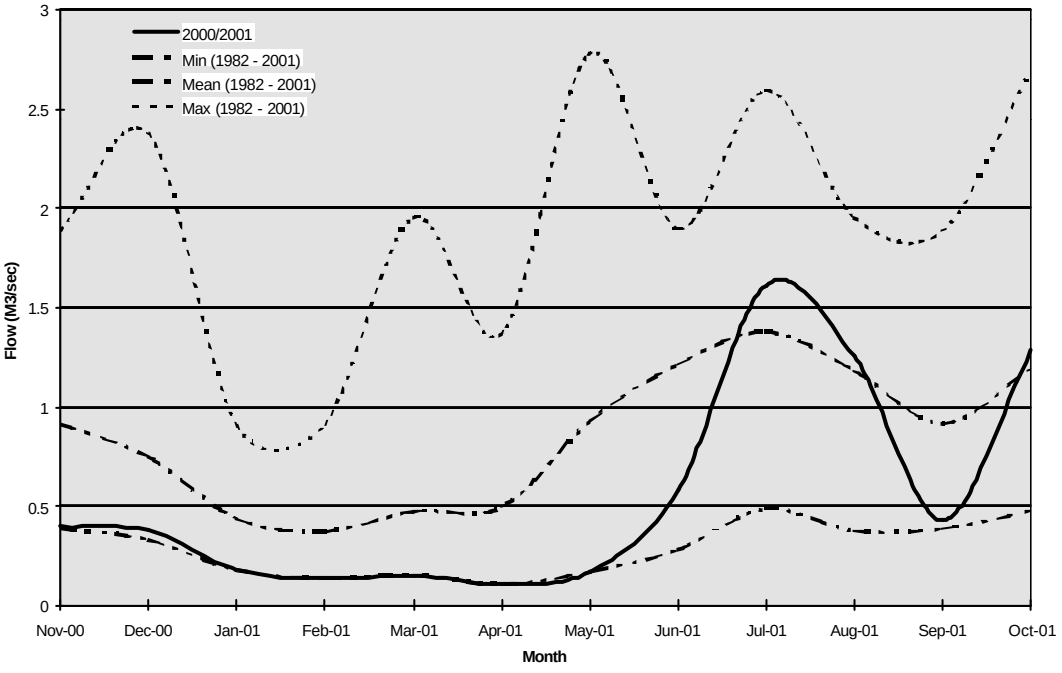
Hutt River Flows

The mean monthly flow in the Hutt River dropped to the minimum recorded in September. The mean monthly flow in the Hutt River during October returned to around normal after reaching a minimum in September.



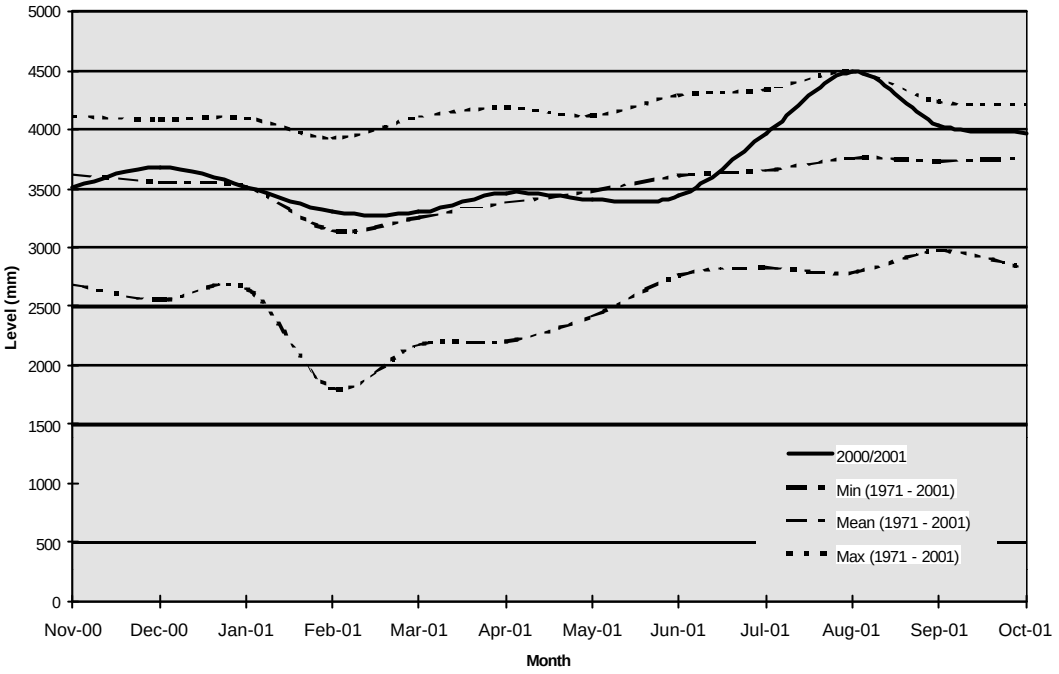
Wainuiomata River Flows

Flow in the Wainuiomata River during September was slightly above minimum recorded values. Flow in the Wainuiomata River returned to around normal during October.



Aquifer Levels

The water level in the Waiwhetu aquifer during September was above average. During October the water level remained high.



4. Production

4.1 Wainuiomata

4.1.1 Quality

There are no quality issues to report

4.1.2 Safety

There are no accidents or incidents to report.

4.1.3 Operations

There are no items to report.

4.1.4 Projects

There are no items to report.

4.1.5 Plant Tours

18 September Probus Club members - 12

19 September Bob McGrath and four NZCE Stage 3 students

4.1.6 General

- The centrifuge is still giving us problems. The screw conveyer removing the dry sludge from the centrifuge has some design flaws. Solutions for this are not easy or cheap.

- If it were not for the rain late September, the plant would have been turned off because of insufficient raw water to maintain the plant's minimum flow rate.

- The heavy downpour of rain on 13 October left the Orongorongo intake unusable for a few weeks. Gravel from some large slips changed the way the river flowed past the intake and buried the intake's external screens. The next fresh washed this away.

- The Landcare Division had pig hunters in the catchment from 13-21 October.

- New resource consents for the intakes came into force during the period.

- An earthquake exercise was held on 31 October.

4.2 Waterloo Water Treatment Plant

4.2.1 Quality

There are no quality issues to report.

4.2.2 Safety

There are no accidents or incidents to report.

4.2.3 Operations

There are no items to report.

4.2.4 Plant Tours

18 September Probus Club members - 12

4.2.5 Projects

- Capital Works

  - Columns are to be added in the pump hall to help reduce vibration.

- Operational Projects
  - The data warehouse proceeds as time permits.

4.3 Gear Island

4.3.1 Quality

There are no quality issues to report.

4.3.2 Safety

There are no accidents or incidents to report.

4.3.3 Operations

There are no items to report.

4.3.4 Plant Tours

There were no tours during the period.

4.3.5 Projects

- Capital Works
  - The chlorine gas building ahs been completed. Mechanical fitting has been completed. A few minor electrical items are to be sorted out and software programme to be carried out.

4.3.6 General

- The harmonic problem has been confirmed by an external electrical engineer. Their recommended solutions were not practical. At this stage Gear Island Water Treatment Plant is limited to 17 MLD.

4.4 Te Marua

4.4.1 Quality

Date	Transgression	Cause
26 October 2001	Low fluoride	Feeder contactor failed

4.4.2 Safety

There are no accidents or incidents to report.

4.4.3 Operations

Date	Problem	Cause
11 September 2001	Low treated water pH	Caustic dose pump lost prime
16 September 2001	High pumping station pH	Caustic dose adjustment
19 September 2001	Low treated water pH	Caustic dose pump tripped
20 September 2001	Filter No. 4 outlet turbidity alarm	Insufficient polymer dose
21 September 2001	Filter No. 2 outlet turbidity alarm	Insufficient polymer dose
1 October2001	Low treated water pH	Flow fluctuation through plant
3 October2001	High treated water pH	Flow fluctuation through plant
12 October2001	Lake No. 2 outlet valve alarm	Faulty valve position signal
14 October2001	Broken water pipe at Kaitoke	Pipe cut by contractor
18 October2001	Low treated water pH	Flow fluctuation through plant
25 October2001	Filter No. 1 sequence fault	North outlet valve failed to close
29 October2001	High pumping station pH	Flow fluctuation through plant

4.4.4 Plant Tours

17 September Massey NZCE Stage 3 students - 5
3 October Wellington Regional Council staff induction tour - 21

4.4.5 General

- Kaitoke Abstraction (New Consent Conditions)
  - New control system software is being developed to maximise the permitted abstraction from the Kaitoke intake. Installation and commissioning will be completed during November.

5. Distribution

5.1 Health and Safety

One worker suffered a slight back sprain and another worker had a foreign body in their eye.

5.2 Pipeline Section

5.2.1 Maintenance/Repairs

- The cross connection valves from the 750 mm cast iron main to the OK main at Wainuiomata were repaired.
- New single air valves were installed on the 1050 mm pipeline from Ngauranga valve chamber to Thorndon Pumping Station.
- The ski club valve chamber on the 1050 mm main was refurbished.
- Renovations to both scour valve tailpipes were carried out at the Korokoro Stream crossing. New manholes risers with non-return valves were installed on the 1050 mm main.

- A new valve chamber was installed over the double air valve on the Pukerua Bay branch line, past the Plimmerton Weigh Station.

- Maintenance checks were carried out on the 750 mm cast iron and OK water mains over Wainuiomata.

5.2.2 Thorndon Pumping Station

- The 500 mm line valve for the OK Main in the pumping station was renewed. A bypass and scour valves were also added.

5.2.3 Korokoro Valve Chamber

- The pipework refurbishment was completed and anchor blocks were poured.

5.2.4 Pukerua Bay Deviation

- The closing pipework was fabricated, plus the private supply pipework.

5.2.5 Kelburn Pipework Alterations

- The pipework was fabricated for stage 1 of this work and the inlet pipework was excavated.

5.2.6 Earthquake Exercise

- An earthquake exercise was carried out for Water Group staff.

5.3 Electrical Section

5.3.1 Karori Pumping Station

- Temporary control was installed from Kelburn Reservoir to Karori Pumping Station for the Kelburn Reservoir upgrade.

- Efficiency pump tests on all wholesale supply pumping stations were performed for the hydraulic model project.

- Pressure monitoring sites are being installed through the system for the hydraulic model project.

6. Health and Safety : Total Injury/Illness/Incident Record

- Production

There were no accidents or incidents during the period.

- Distribution

One worker suffered a slight back sprain and another worker had a foreign body in their eye.

- Network

There were no accidents or incidents during the period.

Water Group Health and Safety Data 2001 : Total Injuries

PRODUCTION (+ 1 OPS ADMIN)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	1,909	2,468	2,526	2,041	2,710	2,381	2,510	2,568	2,220	2,542			Mar = breathed in chlorine fumes whilst opening HTH container
Employee numbers	16	16	15	15	15	15	15	15	15	15			Mar = Overalls caught on mixer shaft
Injuries	0	0	2	1	0	0	0	0	0	0			Apr = Near Miss - exploding glass from light fitting - TM Control Room
Days lost	0	0	0	0	0	0	0	0	0	0			
Incidence rate (number of incidents per 100 workers)	0	0	13.3	6.6	0	0	0	0	0	0			
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	791.7	489.9	0	0	0	0	0	0			
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0	0	0	0	0			

DISTRIBUTION	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	1,671	1,524	1,810	1,539	2,135	1,589	1,851	1,963	1,747	1,707			Feb = welding up pipe & received burn by arc splatter
Employee numbers	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	10.5	9.5			Mar = minor sprain
Injuries	0	1	1	0	2	1	1	0	0	2			May = lower back strain from lifting & jarred right wrist using big hammer
Days lost	0	0	0	0	0	5	0	0	0	0			Jun = stood on nail - went through boot into foot
Incidence rate (number of incidents per 100 workers)	0	8.7	8.7	0	17.4	8.7	8.7	0	0	21			Jul = minor back sprain
Frequency rate (incidents per 1,000,000 hours exposure)	0	656	552	0	936.7	629	540	0	0	1,172			October = slight back sprain and foreign body in eye
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	3,147	0	0	0	0			

NETWORK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	3,603	3,699	3,926	3,207	4,059	3,489	3,441	3,638	3,202	3,367			Jan/Feb /Mar = Days lost due to worker on ACC. Incident recorded in Dec 00
Employee numbers	24	24	24	23	22	21	21	21	21	20			Mar = Dislocated finger
Injuries	0	0	2	3	0	0	0	1	0	0			Mar = Body stress to trunk
Days lost	20	15	22	21	0	0	0	0.5	0	0			Apr = twisting back, knee injury, damage to gas pipe (near miss)
Incidence rate (number of incidents per 100 workers)	0	0	8.3	13	0	0	0	4.76	0	0			Apr = 18 days lost due to worker on ACC. Incident recorded in Dec 00
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	509	935	0	0	0	275	0	0			Aug = back strain from lifting taping set out of ute
Severity rate (days lost to injury per 1,000,000 hours worked)	5,551	4,055	5,603.6	6,548	0	0	0	137	0	0			

ENGINEERING CONSULTANCY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	1,773	1,855	2,209	2,050	2,767	2,289	2,296	2,365	1,814	1,991			Jan = Tree branch struck right elbow
Employee numbers	15	15	15	15	15	15	15	15	15	15			Feb = Tripped on road marker
Injuries	1	1	0	0	2	0	0	0	0	0			May = strained back whilst shutting valve
Days lost	0	0	0	0	0	0	0	0	0	0			May = head on crash aggravated an ankle strain
Incidence rate (number of incidents per 100 workers)	6.6	6.6	0	0	13.3	0	0	0	0	0			
Frequency rate (incidents per 1,000,000 hours exposure)	564	539	0	0	722.8	0	0	0	0	0			
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0	0	0	0	0			

UTILITY SERVCIES SUPPORT	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	1,004	1,160	1,137	1,116	1,340	1,132	1,332	1,352	1,160	1,276			Mar = punctured elbow with staple whilst leaning on pile of documents
Employee numbers	8	8	8	8	8	8	8	8	8	9			Jun = silt thumb on sharp vacuum seal of new coffee container
Injuries	0	0	1	0	0	1	0	0	0	0			
Days lost	0	0	0	0	0	0	0	0	0	0			
Incidence rate (number of incidents per 100 workers)	0	0	12.5	0	0	12.5	0	0	0	0			
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	879.5	0	0	883	0	0	0	0			
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0	0	0	0	0			

LABORATORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	1,228	1,254	1,368	1,110	1,428	1,299	1,390	1,327	1,206	1,370			Jan/Feb = days lost due to possible chemical exposure during acid washing
Employee numbers	10	10	10	10	10	10	10	10	10	9			Feb = cut thumb on sharp metal in sink
Injuries	0	1	0	0	0	0	1	2	0	0			Mar = days lost due to possible chemical exposure during acid washing
Days lost	3	3	0	7	0	0	0	0	0	0			Jul = pulled left wrist and hand whilst pulling on handbrake in car
Incidence rate (number of incidents per 100 workers)	0	10	0	0	0	0	10	20	0	0			Aug = hit head on doorway of TDI hut at Gracefield Reservoir
Frequency rate (incidents per 1,000,000 hours exposure)	0	797	0	0	0	0	719	1,507	0	0			Aug = upper body sprain from trying to close lock at Gracefield Reservoir
Severity rate (days lost to injury per 1,000,000 hours worked)	2,443	2,392	0	6,306	0	0	0	0	0	0			Oct = burn to three fingers

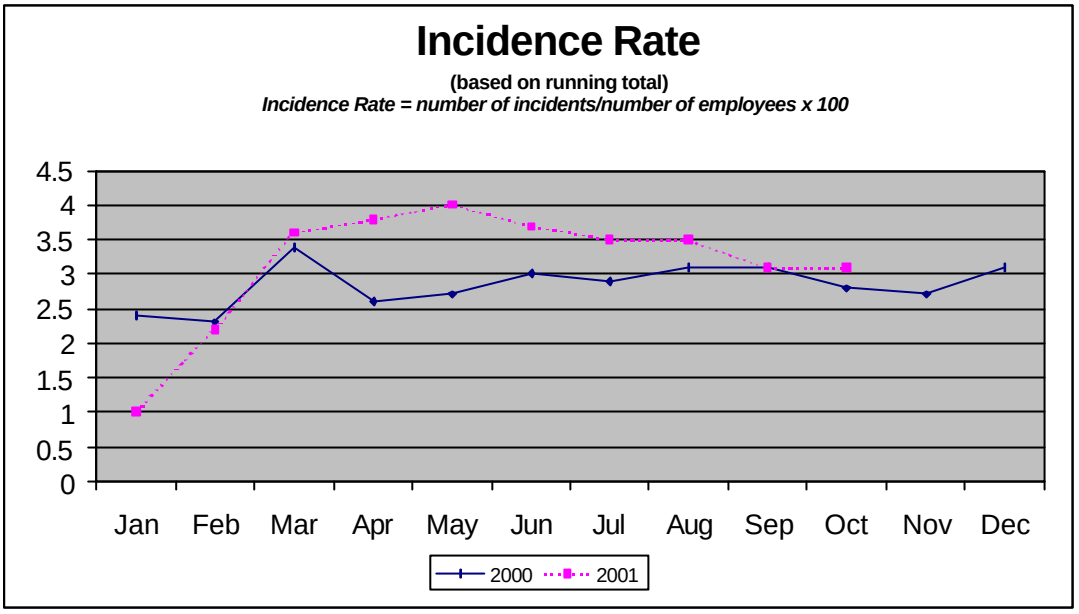
STRATEGY AND ASSET	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	480	576	620	504	848	760	868	880	760	642			
Employee numbers	4	4	4	4	5	5	5	5	5	5			
Injuries	0	0	0	0	0	0	0	0	0	0			
Days lost	0	0	0	0	0	0	0	0	0	0			
Incidence rate (number of incidents per 100 workers)	0	0	0	0	0	0	0	0	0	0			
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	0	0	0	0	0	0	0	0			
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0	0	0	0	0			

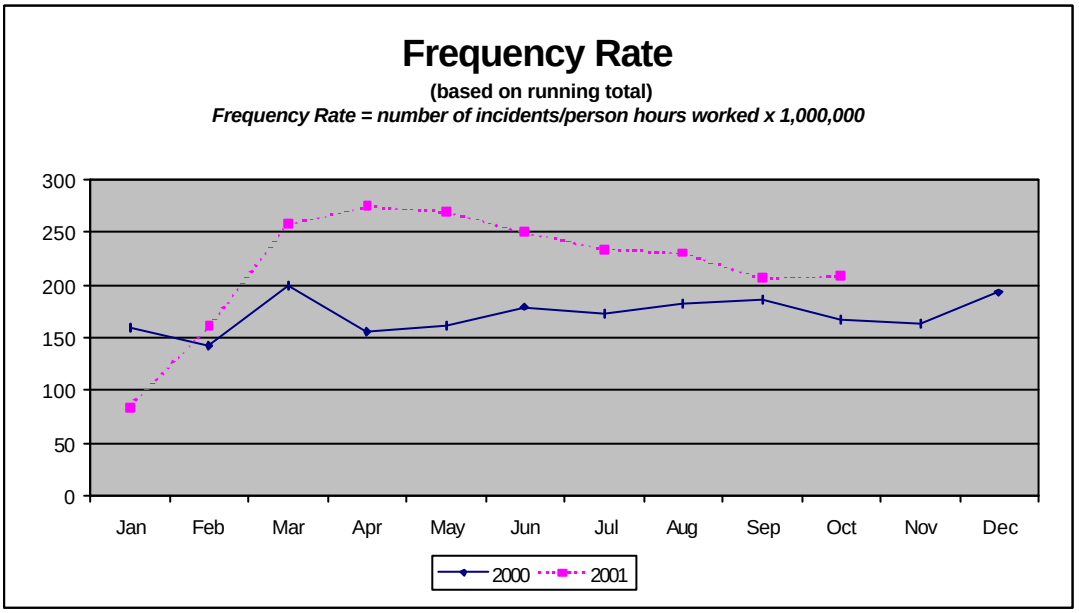
FORESTRY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	263	390	447	362	473	441	507	500	362	452			
Employee numbers	3	3	3	3	3	3	3	3	3	3			
Injuries	0	0	0	0	0	0	0	0	0	0			Incidence rate = (number of injuries/number of employees) x 100
Days lost	0	0	0	0	0	0	0	0	0	0			Frequency rate = (number of injuries/person hours worked) x 1,000,000
Incidence rate (number of incidents per 100 workers)	0	0	0	0	0	0	0	0	0	0			Severity rate = (days lost/person hours worked) x 1,000,000

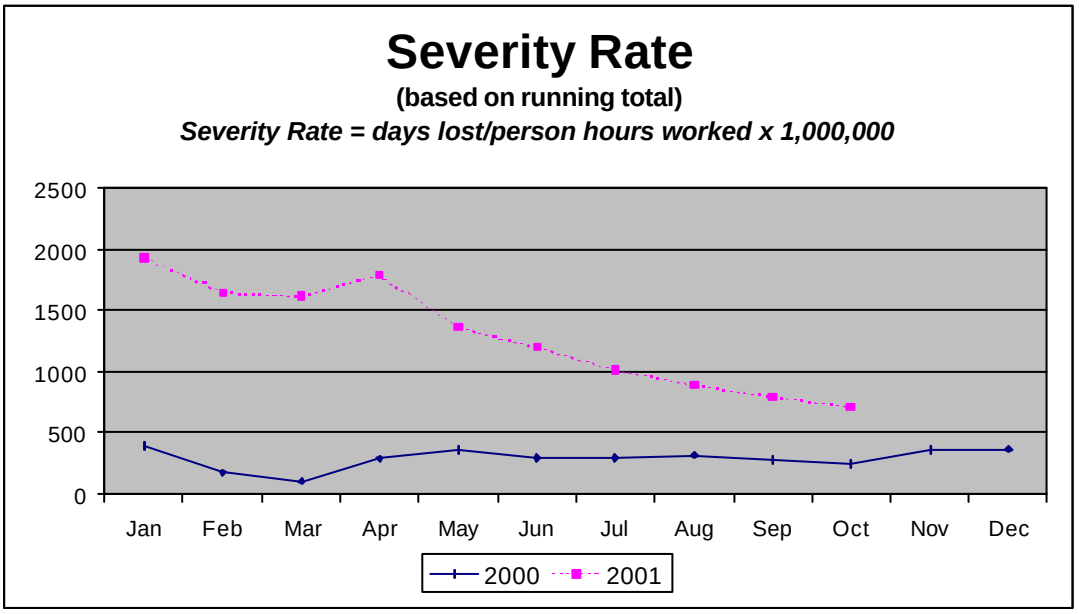
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	0	0	0	0	0	0	0	0	
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0	0	0	0	0	

Utility Services Division Combined	Jan	Feb	Running Total from 1/1/01	Mar	Running Total from 1/1/01	Apr	Running Total from 1/1/01	May	Running Total from 1/1/01	Jun	Running Total from 1/1/01	Jul	Running Total from 1/1/01	Aug	Running Total from 1/1/01	Sep	Running Total from 1/1/01	Oct	Running Total from 1/1/01	Nov	Running Total from 1/1/01	Dec	Running 12 month Total
Hours worked	11,929	12,925	24,854	14,042	38,896	11,928	50,824	13,739	64,563	13,378	77,941	14,193	92,134	14,392	106,526	12,470	118,996	13,347	132,343				
Employee numbers	92	92	92	91	92	90	91	90	91	89	91	89	90	89	90	88	90	87	89				
Injuries	1	3	4	6	10	4	14	4	18	2	20	2	22	3	25	0	25	3	28				
Days lost	23	18	41	22	63	28	91	0	91	5	96	0	96	0.5	97	0	97	0	97				
Incidence rate (number of incidents per 100 workers)	1	3	2.2	7	3.8	4	3.8	4	4.0	2	3.7	2	3.5	3	3.1	0	3.1	3	3.1				
Frequency rate (incidents per 1,000,000 hours exposure)	84	232	161	427	257	335	275	254	270	150	250	141	234	208	208	0	208	225	208				
Severity rate (days lost to injury per 1,000,000 hours worked)	1,928	1,393	1,650	1,567	1,620	2,347	1,790	0	1,367	374	1,201	0	1,020	34	790	0	790	0	717				

Incidence rate = (number of incidents/number of employees) x 100
Frequency rate = (number of incidents/person hours worked) x 1,000,000
Severity rate = (days lost/person hours worked) x 1,000,000


Incidence Rate
(based on running total)
Incidence Rate = number of incidents/number of employees x 100
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2000 2001


Frequency Rate
(based on running total)
Frequency Rate = number of incidents/person hours worked x 1,000,000
300
250
200
150
100
50
0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2000 2001


Severity Rate
(based on running total)
Severity Rate = days lost/person hours worked x 1,000,000
2500
2000
1500
1000
500
0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2000 2001

Operations Network
Review of Operations for the Period Ended 31 October 2001

1. Items of Note

- Five main bursts were attended to and repaired within the requisite timeframe during September. During October there were four bursts, which were all attended to in conformance with the performance targets.

2. Water Quality

2.1 Routine Testing (A1)

The water quality was monitored and the appropriate laboratory tests were completed for September and October. There were 145 samples from the reticulation system tested for bacteriological compliance during September and 164 samples in October.

Compliance for both months was 100 percent. Compliance for the year to date is 100 percent.

2.2 Water Tests Initiated by Customers (A2)

	September	October	Year to Date	Compliance Year to Date (%)
Number received	5	3	29	-
Within ability of Operations Network to control	0	0	2	-
Formal response within five days	5	3	27	92.3%

3. Customer Services

3.1 Counter and Other Office Services (E)

Information has been provided to customers requesting information by letter, telephone and over the public counter.

A breakdown of enquiries received during September and October is as follows:

	September	October
Counter enquiries	111+ 17 encroachments	81 + 12 encroachments
Proposals from other utilities	2	7
Response time requirement compliance	100%	100%

3.2 Performance Standards (G)

September 2001

	Expected Compliance	No. of Activities	Completed to Standard	Compliance Achieved
Miscellaneous				
A Quality complaints (samples)	85-95%	5	5	100%
A System Flushing **(M1.4)**	85-95%	39	39	100%
B Pressure and flow	85-95%	12	12	100%
B Loss of Supply **(M1.5)**	85-95%	29	29	100%
C Planned Shutdowns	95%	53	53	100%
C Unplanned Shutdowns	95%	14	14	100%
D Mark-outs	90-95%	51	51	78%
G Workmanship (joint audit results for August 2001)	90-95%	47	45	95%
O Meter Reading	*100%*	*Achieved*	*Achieved*	*Achieved*
Significant Leaks (M1.2 or o/e)				
H Burst Mains **(3 O&E)**	85-95%	5	5	100%
H Other	85-95%			
Non-significant Leaks				
H Mains **(M1.2) (Includes 2 O&E)**	85-95%	20	18	90%
H Valves **(M1.3)**	85-95%	24	12	50%
H Hydrants **(M1.4)**	85-95%	119	108	91%
H Domestic Services **(M1.5) includes 1 O&E)**	85-95%	173	155	90%
H Stopcocks **(M1.6)**	85-95%	182	173	95%
H Water Meters **(M2.1)**	85-95%	8	8	100%
L Damages **(Variation)**	85-95%	30	20	67%

October 2001				
	Expected Compliance	**No. of Activities**	**Completed to Standard**	**Compliance Achieved**
Miscellaneous				
A Quality complaints (samples)	85-95%	3	3	100%
A System Flushing **(M1.4)**	85-95%	141	141	100%
B Pressure and flow	85-95%	17	17	100%
B Loss of Supply **(M1.5)**	85-95%	12	12	100%
C Planned Shutdowns	95%	46	46	100%
C Unplanned Shutdowns	95%	14	14	100%
D Mark-outs	90-95%	73	65	89%
G Workmanship (joint audit results for September 2001)	90-95%	47	47	100%
O Meter Reading	*100%*	*Achieved*	*Achieved*	*Achieved*
Significant Leaks (M1.2 or o/e)				
H Burst Mains **(3 O&E)**	85-95%	4	4	100%
H Other	85-95%			
Non-significant Leaks				
H Mains **(M1.2)**	85-95%	20	19	95%
H Valves **(M1.3)**	85-95%	19	14	74%
H Hydrants **(M1.4)**	85-95%	70	57	81%
H Domestic Services **(M1.5) (includes 2 O&E)**	85-95%	158	134	85%
H Stopcocks **(M1.6)**	85-95%	24	21	88%
H Water Meters **(M2.1)**	85-95%	10	10	100%

October 2001				
	Expected Compliance	**No. of Activities**	**Completed to Standard**	**Compliance Achieved**
L Damages **(Variation)**	85-95%	17	15	88%

Locates and Investigations (Wellington Regional Council Internal Target of Three Working Days)

	September		**October**	
Locate stopcocks	52/55	95%	62/71	87%
Leak locations	78/80	98%	40/60	67%
Flow tests	1/1	100%	0	0
Seepage/investigations	1/1	100%	1/1	100%

Failures

	Jobs Failed by 1-24 Hours		**Jobs Failed by 1-5 Working Days**		**Jobs Failed >5 Working Days**	
	September	**October**	**September**	**October**	**September**	**October**
Burst mains						
Stopcocks			6	3	3	
Hydrants			10	3	1	10
Valves			3	1	9	
Mains	1		1	3		
Domestic services		1	16	16	2	7
Water meters						
Damages	10	2				
Quality complaints						
System flushing						
Pressure and flow						
Loss of supply						
Mark-outs				6		2
Workmanship						

Additional Work Carried Out

	September	**October**
Variations (exclusive of burst mains)	5	8
Service renewals	6	6

Burst Mains

There were five burst mains in September and four during October 2001 as follows:

93 Kenmore Street	21 September 2001
2 Victory Crescent	22 September 2001
43 Waikowhai Street	22 September 2001
Cnr Batchelor Street and Stewart Drive	25 September 2001

39-41 Kemp Street	28 September 2001
70 Pembroke Road	1 October 2001
Tacy Street	8 October 2001
162-192 Newlands Road	16 October 2001
169 Happy Valley Road	16 October 2001

Overs and Extras

93 Kenmore Street	Burst main	21 September 2001
2 Victory Crescent	Burst main	22 September 2001
39-41 Kemp Street	Burst main	28 September 2001
Cnr Webb and Willis Streets	Major leak on main/valve repair	14 September 2001
46 Montgomery Avenue	Broken main/blown service	14 September 2001
60 Rolleston Street	Leak on service on main	3 September 2001
70 Pembroke Road	Burst main	1 October 2001
162-192 Newlands Road	Burst main	16 October 2001
169 Happy Valley Road		16 October 2001
33 Mark Avenue	Leak on service, major repair	26 October 2001
2 Curacao Place	Leak on service, major repair	13 October 2001

4. Health and Safety

There were no accidents or incidents to report during September and October.

5. Meters

A total of 1,522 suburb and high use meters read and entered into the system by 23 September 2001.

A total of 2,402 city and high use meters read and entered into the system by 23 October 2001.

6. Pumping Stations, Reservoirs and System Control

6.1 General

Normal routine maintenance has resulted in the Wellington City system operating satisfactorily.

6.2 Control System

The control system continues to operate satisfactorily.

6.3 Croydon Street Reservoir

The refurbished reservoir has been completed and is back in service.

6.4 Kelburn Reservoir

Preliminary work commenced for the decommissioning of Kelburn Reservoir in preparation for the new reservoir to be built.

6.5 Valve Inspection

An inspection of the valve on the 800 mm main to Macalister Park Reservoir confirmed that the valve is okay but is operating in a throttled position to maintain pressures in the Thorndon Zone.

6.6 Maintenance Checks

Maintenance was carried out during the period as follows:

September 2001	
Round C	**Round D**
Allington Road Messines Road Pumping Station Karori Park Montgomery Avenue Makara Road Verviers Street The Zoo Russell Terrace Lyndhurst/Chester Roads Mills Road Woodridge CV	Karepa Street Highbury Landfill Reservoir Landfill CV Rhine Street Beacon/Signal Hill Townsend Road Miramar North Dargle Way Grenada CV Rangoon Heights Ngaio CV

October 2001	
Round E	**Round F**
Johnsonville Pumping Station Ngauranga Reservoir/Pumping Station Kaiwharawhara Pumping Station Thorndon Pumping Station Karori Reservoir/Pumping Station Macalister Park Reservoir Churton Park CV Maldive Reg./Abb. CV Tawa Linden	Randwick Pumping Station Tunnel Grove Chamber Rocky Point Chamber Korokoro Valve Chamber Wainuiomata Pumping Station Moores Valley Pumping Station Mabey Road Generator Naenae Reservoir Gracefield Reservoir Rahui Reservoir

7. Development

7.1 Development Statistics (F2)

Subdivisions	September	October	Year to Date
Construction plans approved (lots/units)	5	28	71
Scheme plans approved	40	23	133
Subdivisions cleared (lots/units)	46	70	196
Total subdivisions processed	69	60	264
Subdivisions processed on time	69	60	324
Response time compliance	100%	100%	96.9%

7.2 Development Projects

7.2.1 Churton North Reticulation

A recent inspection of the pressure reducing valve chambers showed 450 mm of water in the Waverton Terrace chamber and 50 mm of water in the Amesbury Drive chamber after the pumping out on 17 July 2001. We have requested Truebridge Callender Beach Ltd to repair the chamber.

7.2.2 Subdivisions General Items

A long fire service running through the property at 25 Tacy Street, Kilbirnie, is to be relaid outside the boundary as part of a Unit Title subdivision. Construction plans have reached an acceptable standard and Wellington Regional Council is now awaiting the approval of the owner of the pipe before finally approving the plans.

Subdivision issues aside, this existing fire service represents a dead end approximately 300 m long and is a contamination risk. Wellington Regional Council recommended to Logen Logeswaran of Wellington City Council that either a hydrant be put on the pipe, so it can be flushed, or that Wellington City Council take over the pipe as a public main.

7.2.3 Construction and As-built Plans

7.2.3.1 Construction Plans

Construction plans were considered for approval of the following subdivisions:

- Cortina Avenue/Nether Green Crescent/Ohariu Road, Johnsonville (28 lots). This plan was approved on 8 October 2001.

- 6 Rueben Avenue, Brooklyn (17 lots). These plans were approved on 24 September 2001.

- 28 Hawtrey Terrace, Johnsonville (18 lots). These plans have not yet been approved, as further amendments have been requested. Four pressure reducing proposals were submitted for discussion. Wellington Regional Council advised that it believed the option using three 50 mm pressure reducing valves, one at the start of each small right-of-way, was the most suitable. This option would involve the least maintenance costs for Council.

- 25 Tacy Street, Kilbirnie (approximately 45 Unit Titles). Construction plans for the relaying of the fire service outside the boundaries are satisfactory but not yet approved. The owner of the fire service must first provide approval of the proposal. Wellington Regional Council has written to the owner forwarding a copy of the construction plans and is awaiting a response.

- Alanbrooke Place, Karori (7 lots). Amendments requested on 10 October.

Reimbursement proposal forwarded to Wellington City Council on 10 October 2001.

7.2.4.2 As-built Plans

The following as-built plans were considered for approval during September and October:

- 18 Buccaneer Place, Grenada (5 lots). This plan has not yet been approved, as remedial work has been requested.
- 87 Hill Street, Thorndon (6 lots). This subdivision (Lots 6-11) was cleared on 7 September. The as-built plan will need to be updated before stage 3 clearance.
- Downing Street, Chartwell (5 lots). This plan was approved on 10 September.
- 487 Ohiro Road, Brooklyn (5 lots). This plan was approved on 17 September.87 Hill Street, Thorndon (6 lots). Final Lots 1-5 have been cleared.
- 87 Hill Street, Thorndon (6 lots). Final Lots 1-5 have been cleared.
- 6 Paratu Way. Objection forwarded to Logen Logeswaran, Wellington City Council.
- Rossaveel Heights (10 lots). As-built plans are under inspection.

7.2.5 Fire Services Recently Connected

There were no fire service connections installed during September or October.

Month	Processed	Complying	Compliance
September	2	2	100%
October	1	1	100%

7.2.6 New Commercial Metered Services

The following new metered services were installed during September:

- Malvina Major Retirement Village, 134 Burma Road, Johnsonville (80 mm)
- Murchison Street Paddock, Happy Valley (20 mm)

There were no metered services installed during October.

Month	Processed	Complying	Compliance

September	1	1	100%
October	1	1	100%

7.3 Building Development Appraisals (F1)

	September		October	
	Commercial	Domestic	Commercial	Domestic
Building consents	0	28	2	15
PIMS applications	0	36	2	23
Compliance with response time requirement	100%	100%	100%	100%

7.4 Land Information Memorandum (F1)

	September	October
Applications processed	5	61
Compliance with response time requirement	100%	100%

8. Capital Works

8.1 Main Laying

8.1.1 Contracts in Maintenance Period

The following pipelaying contracts are in the maintenance period:

- Percival Street
- Oriental Terrace
- Taranaki Street
- Tirangi Road and Lyall Parade
- Rex Street
- Tanera Crescent

The maintenance period for the Bell Road Zone Contract has expired.

8.1.2 Thorndon Quay and Central Business District Pipelines

Work on the drawings and documents for replacing the pipelines in Thorndon Quay, Mulgrave Street and Kate Sheppard Place is well under way and a draft route prepared. The Contract has been reprogrammed to be awarded prior to the end of the year, to commence early in 2002.

8.1.3 Bowen and Cuba Streets 200 mm and 250 mm Water Main Renewals

Pipelaying is complete in Bowen Street, with cut-ins about to be made. In Cuba Street the route has been saw-cut. Approval has been received from the Road Protection Team for concrete breaking on Sunday, 4 November, and pipelaying at night the following week.

8.1.4 Southern Suburbs 100 mm and 150 mm Water Main Renewals 2001/2

The Contract was awarded to Excell Corporation Ltd, which plans to start in The Esplanade on Monday, 5 November 2001.

8.2 Reservoirs

8.2.1 Kelburn Reservoir Replacement

Consultant	Sinclair Knight Merz
Work completed	➢ Tenders have been received and are being assessed.
Public complaints	None
Health and safety	No issues
Consultant's performance	Work is proceeding well.
Financial commitments	Invoices have been recommended for payment.
Proposed work	➢ Start-up of the construction Contract.
ECG Work	➢ Arrangements made for Wellington Regional Council's Distribution Section to carry out isolations for the north reservoir. ➢ Contract awarded for water main alterations in Disley Street to accommodate the new outlet main.

8.2.2 Wadestown Reservoir Replacement

Consultant	Montgomery Watson Ltd
Work completed	Certificate of Practice Completion issued
Consultant's performance	Satisfactory
Financial commitments	Invoice up to end of September recommended for payment
Proposed work	➢ Still awaiting identification of outstanding issues to obtain Environmental Control Business Unit clearance and bond release.
Contractor	McKee Fehl Constructors Ltd

Work completed	➢ Contractor demobilised
Public complaints	None
Health and safety	No issues
Financial commitment	Total work completed to 31 July 2001 - $698,000

8.2.3 Grenada North High Level Reservoir

Consultant	Truebridge Callender Beach Ltd
Work completed	Certificate of Practical Completion issued
Consultant's performance	Satisfactory
Financial commitments	Forecast Consultant's claim to completion - $68,000
Proposed work	➢ Finalisation of outstanding issues, including the flushing of the water mains
Contractor	Juno Civil Ltd
Work completed	➢ Contractor demobilised ➢ Old tanks decommissioned and removed
Public complaints	None
Health and safety	No issues
Financial commitment	Forecast Contract claim to completion - $525,000

8.2.4 Eastern Suburbs Reservoir

Opus International Consultants Ltd has been commissioned. The start-up meeting has been held. Arrangements are being made for geotechnical investigations.

8.2.5 Southern Suburbs Reservoir

Wellington City Council Landfill staff have carried out exploratory investigations. A geological assessment has been made, as well as an assessment of the potential effect of landfill gases. The report draft from the consultants has just come to hand.

Strategy and Asset Group
September/October 2001

Strategy and Asset Group
Review of Operations for the Period Ended 31 October 2001

1. Items of Note

- A particularly dry September led to increased water use and the possibility of low water tables in the catchments prior to summer. To try and negate this, a cautionary media release was issued in early October. Since then, the rain has been regular but not excessive. The catchments have now recovered and water supply conditions prior to summer are expected to be good.

- Preliminary discussions with our customers about how water is supplied in a major emergency if the pipelines are unavailable have been concluded. A separate report considers this issue.

- A further 1.3 ML per day of Waiwhetu aquifer water has been obtained through a resource consent transfer. This has come from an industrial user, which no longer needed it.

- A Contract has been let for the upgrading of the pipeline along the Petone Foreshore that supplies water to Hutt City Council's Rahui Reservoir. This is the last pipeline for treated water in the wholesale water supply system to be refurbished. All pipelines are now lined or are non-metallic.

- Work has started on preparing a framework for public health risk management plans. It is now expected that legislation will be introduced in 2002.

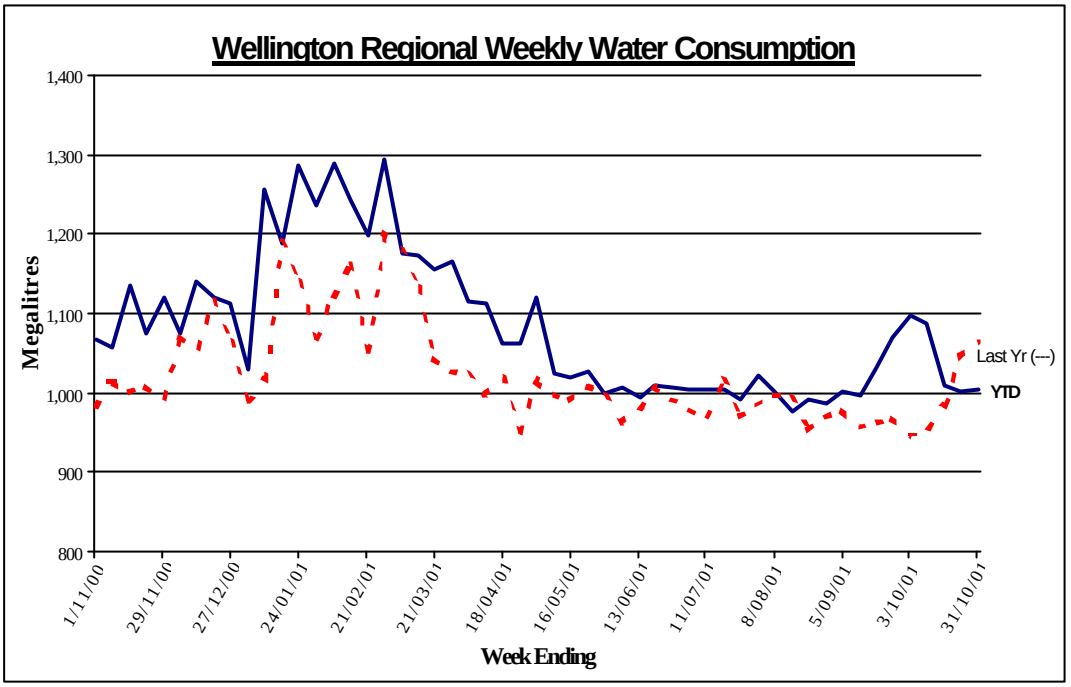
- Progress on resolving the easement cost to Hutt City Council for use of the Wainuiomata Tunnel has been stalled while wider land issues were considered. Some progress is expected in November.

- A minor pig hunting programme took place in the Wainuiomata Catchment because of isolated areas of damage. Thirteen pigs were eliminated.

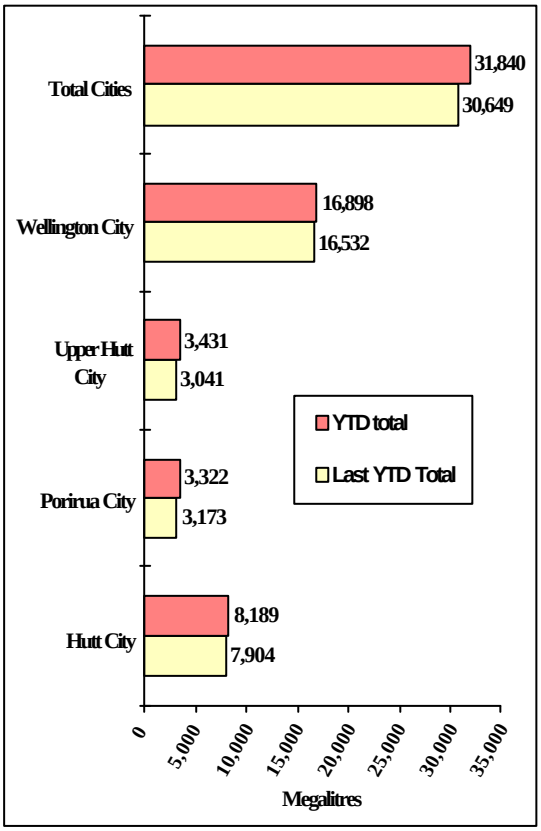
2. Sales Volume

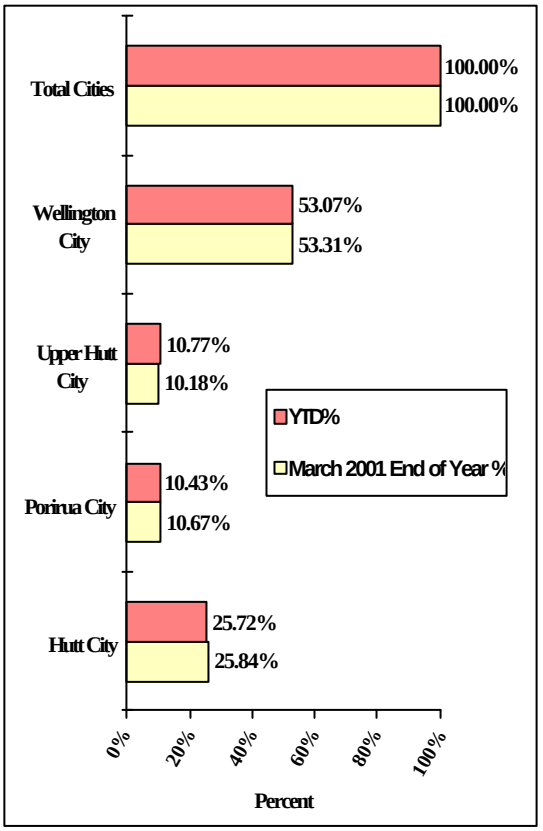
Graphs outlining sales volumes are on page 30.

Water Sold Over the Last 12 Months



Water Sold from 1 April 2000 to 31 October 2001





3. Asset Management

- Capitalisation of completed capital works to the value of $4.29 million was completed on 21 September and to the satisfaction of the auditors. Further versions of the Hansen Financial Movement Report, which reports financial information from the Hansen asset management system for inclusion in the financial reports have been tested, but shortcomings still exist.

- A review of the June 1998 Asset Management Plan has been commenced but no significant changes will be made until the 2002/3 year.

- The 2001/2 Capital Works Programme is under way. A Contract has been let for the most substantial project, lining of the Rahui Reservoir supply main (part of the old Orongorongo/Karori pipeline), and work will commence in January 2002. Other projects include:

  - Completion of the gas chlorination plant at Gear Island
  - Security improvements at the treatment plants
  - Replacement of the switchboard and pumps at Johnsonville Pumping Station
  - Noise insulation at Moores Valley Road Pumping Station
  - Various minor improvements and replacements at the treatment plants
  - Noise and vibration suppression work at Waterloo Water Treatment Plant

- Draft plans for the subdivision of the Karori Reservoir land have been completed and subdivision consent granted. Further administrative approvals are required to complete the transfer of land to the Wellington City Council.

- Issues associated with our application to take water from the Moera aquifer are being worked through with IBM, whose fire protection system may be affected by our proposal.

- Good progress has been made on updating the Sustainable Yield Model, our primary strategic planning tool. This model will be refined and used in conjunction with the hydraulic model to improve our understanding of the potential capacity of the system. The Resource Investigations Section has developed a new model of the Waiwhetu aquifer and a change to the estimated yield of the aquifer may result.

- A number of Transit New Zealand's highway upgrading proposals that affect our distribution mains are in progress. Relocation of a section of the Pukerua

Bay supply main has been completed in conjunction with the current realignment work between Plimmerton and Pukerua Bay. The Council is required to meet 50 percent of the cost of this work. Planning is also under way to relocate the branch main to the Plimmerton Reservoir, which will be affected by new State Highway 1 roading work at Plimmerton. Planning work is also under way to move our main onto the new duplicated Paremata Bridge. This move will greatly reduce the seismic vulnerability of our pipeline to Paremata and Pukerua Bay.

- A total of 41 people from the general public participated in the first public guided walk into Wainuiomata/Orongorongo Catchment on 28 October. House No. 1 Reservoir has been removed and the site landscaped. House No. 2 remains vacant. Obsolete communications and power cabling in the area has been removed and surplus poles taken away. Professional hunters shot 13 pigs and five goats near the north boundary of the Wainuiomata/Orongorongo Catchment during October. A small number of unauthorised people have been encountered in the Wainuiomata Catchment during the report period.

4. Quality Assurance

- The new 2000 version of the *Drinking-Water Standards for New Zealand* require that turbidity be monitored at each filter and be analysed and reported on a daily basis. We are working with the Public Health Service on new control and reporting systems to achieve this. Control systems are in place but the volume of data required to report on continuous monitoring is causing problems.

- These rules are intended to reduce the risk of *Giardia* and *Cryptosporidium* passing through the plant. The plants incorporate "slam-shut" valves, so that any water that does not comply with the Drinking-Water Standards for New Zealand is not normally delivered to the customers.

- An application has been submitted to the Public Health Service for the Wainuiomata Water Treatment Plant to be upgraded to an A grading. Data to support the application is being assembled. The shear volume of this data is creating problems.

5. Marketing

5.1 Summer Water Conservation Campaign

- Television air time has been booked for a seven week period during January and February, to screen the Wellington Regional Council summer water conservation advertising featuring Maggie Barry.

- Kapiti Coast District Council has been approached about its continuing

involvement with this campaign and has requested that it wishes to remain associated with our advertising.

- Copy has been written for an article in the December issue of *Elements* to promote our water conservation campaign.

- Corporate Communications has made radio time available during December, January and February for the promotion of water conservation and radio advertising is being developed. Planning is ongoing.

5.2 Other Activities

- The Water Group's *Report of Business Activity for 2000/2001* was completed and published by 31 October.

- Three press releases were written or contributed substantially to: *WRC rejects poor water service charge* (20 September), *Petone water upgrade closer, says WRC* (21 September), and *Water catchments need rain soon – WRC* (5 October).

- Further progress was made for a new brochure covering the wholesale water system. This will provide adults and children who visit our plants or ask for information with a straightforward explanation of how the Regional Council collects, treats and distributes water. It will replace four brochures about individual treatment plants created between 1990 and 1994.

- Six group visits to Wellington Regional Council water treatment plants were arranged.

- Aerial photographs of the major Wellington Regional Council water supply assets were arranged, to provide an up-to-date publicity resource.

6. Projects Undertaken by Engineering Consultancy for Strategy and Asset

- ### Orongorongo River Intake

  A report is being prepared assessing the current condition of the Orongorongo River intake and identifying any refurbishment requirements.

- ### Orongorongo River Crossing

  The condition of the piers and abutments of the existing pipe bridge has been assessed.

  Options for allowing maintenance vehicle access across the river are being considered.

- Te Marua Lakes and Wainuiomata Roads Reseal

  A Contract has been awarded for patching and resealing sections of road at Te Marua and Wainuiomata.

- *Te Marua Lakes Emergency Action Plan*

  Work on reviewing the *Te Marua Lakes Emergency Action Plan* is proceeding.

- Waterloo Water Treatment Plant Vibration and Noise

  Tenders have been invited for the installation of four columns to stiffen the motor hall floor and reduce the vibration. This is the first stage of the proposed remedial works.

- Refurbishment of the OK Main, Petone

  The Contract for the refurbishment of the OK main between Hutt Park and Korokoro was awarded to Construction Techniques Ltd. The Contractor is obtaining the construction materials and has programmed to start work on 22 January 2002.

- Kaitoke Main Operating Pressure

  A report recommending the maximum acceptable operating pressure in the Kaitoke main has been prepared.

- Deviation of Branch Pipeline to Plimmerton No. 2 Reservoir

  The proposed realignment of State Highway 1 requires Plimmerton No. 2 branch pipeline to be relocated. Design of this deviation is proceeding.

- Pinehaven Branch Main

  Testing of sections of asbestos pipe removed from this main indicates the pipe has in excess of 15 years remaining life. It is proposed to reassess the pipe condition in 15 years.

- Stokes Valley Branch Main

  An assessment is being made of the strength and remaining operational life of the asbestos cement section of this branch main.

- Johnsonville Pumping Station Switchboard and Pumpsets

  Replacement of the Johnsonville Pumping Station switchboard is proposed. An assessment of the condition and efficiency of the pumpset

has concluded that two of the three existing pumpsets should be replaced. It is proposed that the new pumps be controlled with variable speed drives.

- Warwick Street Pumping Station

  An assessment is being made of the condition of the Warwick Street Pumping Station switchboard and pumpsets.

- Karori Pumping Station

  An assessment is being made of the condition of the Karori Pumping Station switchboard and pumpsets.

- Ascot Park Pumping Station

  Flow to the Ascot Park Reservoir has been increased by modifying the inlet control valve. The effect of this modification on maintaining an acceptable water level in the reservoir will be monitored over the 2001/2 summer.

- Kaitoke Pipeline Either Side of Strainer Building

  The concrete pipeline between the Kaitoke Flume Bridge and the No. 2 Tunnel entrance has been repaired. Further work on some minor leaks on the pipe is proceeding.

- Hutt Estuary Bridge Pipelines

  Additional holding down bolts have been installed on the pipe supports.

- Wainuiomata Main Valve Chambers

  A new layout for the pipework around the Gear Island valve chamber on the Wainuiomata main has been prepared. This will simplify the connection of the OK main to the Wainuiomata main and remove unused pipe, reducing the risk of contamination.

- Pipe Holding Down Straps in Tunnels and Tunnel Access

  Pipe securing straps are being designed for installation in the Kaitoke pipeline tunnels. Access into these tunnels is very restricted. New gates, access chambers and covers are being designed to allow safe access into these tunnels.

- Flow Meters

  The option of replacing the head on the Ngauranga interconnection flow meter is being investigated.

Chemical dosing flow meters have been obtained for Te Marua and Wainuiomata Water Treatment Plants. The Production Section will install these meters.

- ### Gear Island Sewer

  A pumped sewer system has been designed for Gear Island Water Treatment Plant. This system will connect to the Hutt City Council sewer. It will replace an existing septic tank. Tenders have been invited for the installation of this sewer.

- ### Review of Seismic Repair Stock

  A report assessing the quantity of stock held for repair of water distribution pipelines following a major seismic event is being reviewed.

Engineering Consultancy Group
September/October 2001

Engineering Consultancy Group
Review of Operations for the Period Ended 31 October 2001

1. Work Carried Out for the Strategy and Asset Group

The main capital projects for which the Engineering Consultancy Group has responsibility are itemised in the Strategy and Asset Group report.

Support is also provided for other projects being undertaken by this group.

2. Work Carried Out for the Operations Group

The Engineering Consultancy Group has continued to provide support for smaller projects arising from the operation and maintenance of the wholesale water supply system.

3. Work Carried Out for Wellington City Council

3.1 General

Current projects underway are detailed in the following sections.

3.2 Thorndon Quay

This project is for the replacement of a 200 mm asbestos cement main for the full length of Thorndon Quay. This will be a challenging project, as Thorndon Quay has already had significant cable laying operations in recent months. Included in the Contract are short sections in Mulgrave Street and Kate Sheppard Place. The project was on hold while Wellington City Council considered its options. The preparation of Contract Documents is now well advanced and construction is programmed to commence early in the New Year.

3.3 Bowen and Lower Cuba Streets

The replacement of short lengths of main in these two streets was split off from the Thorndon Quay project. Although the length to be laid is short, there are considerable difficulties arising from traffic flows and the presence of other underground services. Tenders were invited, a Contract awarded and good progress made with construction work.

3.4 The Esplanade, Island Bay

This project involves replacing water mains in various streets in Island Bay and Kingston. Tenders were invited and a Contract awarded.

3.5 Aramoana Reservoir, Miramar

There is a storage deficit in the Low Level Zone of 10 ML. This was identified and reported on at the time of approval of the Macalister Park 20 ML Reservoir. Of this storage, approximately 7 ML is required in the Eastern Suburbs (Miramar) and 3 ML in the Southern Suburbs (Island Bay). Proposals were invited from consultants and the selected consultant is carrying out initial investigations.

3.6 Kelburn Reservoir

This reservoir will replace two existing reservoirs that are adjacent to the Karori Wildlife Sanctuary. Contract Documents, including the requirements for pipework prepared by the Engineering Consultancy Group were delivered to the prequalified contractors for pricing. A Contract was awarded for pipework modifications in Disley Street and arrangements made for Wellington Regional Council's Distribution Section to carry out some pipeline modifications adjacent to the reservoir.

3.7 Southern Suburbs Reservoir

A report assessing the various potential sites for this reservoir has been completed. More thorough investigations have been carried out at a potential site below Southgate Park. Subsurface investigations have been carried out, to determine the extent of landfill refuse that underlies the site.

3.8 Water Services Agreement

This agreement runs for five months from 1 July to 30 November 2001. The functions carried out are as follows:

- Building consents
- Subdivisions
- System records
- Counter service
- New services and fire services

From 1 December Wellington City Council will take these functions back in-house. This represents a drop in income for the group of $303,000 per annum. This is a significant effect. However, staff numbers have reduced by one internal transfer, one resignation and a proposed retirement.

3.9 Transfer of Information to Wellington City Council

Along with the termination of the Water Services Agreement, Wellington City Council has also requested the return of all relevant information held by Wellington Regional Council on the Wellington City reticulation system.

This information has been accumulating since 1975 when the Wellington Regional Water Board was set up and assumed responsibility for all Wellington City Council water activities. Separating out these files, records and plans has been a major project. However, Wellington City Council has indicated that it will meet the costs involved.

Laboratory Services
September/October 2001

Laboratory Services Department
Review of Operations for the Period Ended 31 October 2001

1. Items of Note

- Our Laboratory Accreditation Audit is arranged for 12 and 13 November with IANZ. This is the full biennial assessment and will be, this time, to the new ISO/IEC 17025 Standard. We are seeking additional signatory power and an extension to the scope of testing we wish to have included. We have put some work into this and are confident of achieving our goals.

- We will be submitting a tender for the Upper Hutt Water Quality Testing Contract No. 039, which closes on 5 November. We expect keen competition from the local laboratories as usual.

- Mangaroa School has asked us to retender for the testing, supply and maintenance of their school water treatment plant now for the 2002 year. We have submitted our tender and await the outcome. Several other small tenders have been submitted.

- Our recent feasibility study into performing total organic carbon (TOC) analyses internally versus subcontracting externally indicates that the purchase of such an analyser would be a viable proposition. Critical to this is gaining from the Environment Division an assurance as to continuity of demand for this work. This will be sought by way of a draft proposal for the acquisition of a TOC analyser.

- Staff numbers have been effectively reduced by one, with two resignations. Coincidentally, both were job sharing for over eight years as field officers but left for different reasons and on different dates. They will be missed as personalities and their considerable contribution to the laboratory team was appreciated.

2. Business Summary

2.1 Quality

There were no requests for retesting samples and test reports are timely.

2.2 Health and Safety

There were several incidents this period, all minor, with none requiring time off work.

Plantation Forestry
September/October 2001

Plantation Forestry Department
Review of Operations for the Period Ended 31 October 2001

1. Log Harvest Contract

Activity has been significantly lower over the past two months, as the harvest in Pakuratahi was completed and there was a delay in the signing of the Contract documentation, which in turn delayed the start in Puketiro. Crews commenced in early November but progress was delayed after five days of heavy rain made the road impassable.

As this report is being prepared, the logging trucks have commenced normal operations and ground based logging will continue until Christmas. After Christmas the hauler will be brought in to harvest the steeper slopes.

At the moment, with the emphasis being on road lining and with mainly edge trees being felled, there is a high proportion of export logs being produced. After Christmas increasing volumes of sawlog and pruned logs will be produced, with a consequential improvement in returns.

Recent grade outputs have been:

Grade		Tonnes	%
August (whole month)			
Pruned Domestic		23.19	0.38
Pruned Export		0	
Partial Pruned		0	
S/A Grade		966.04	15.83
L Grade		369.43	6.05
R Grade		876.19	14.36
K Sawlog		652.86	10.7
K Rough		1,057.09	17.32
Pulp		1,716.06	28.12
O/S Pulp		85.99	1.41
Xport Pulp		279.98	4.59
Other		75.60	1.24
Total August		6,102.42	
September			
Pruned Domestic		15.46	0.24
Pruned Export		0	
Partial Pruned		202.25	3.12
S/A Grade		1,453.37	22.44
L Grade		725.95	11.21
R Grade		765.94	11.82
K Sawlog		430.66	6.65
K Rough		805.47	12.44
Pulp		1,517.70	23.43
O/S Pulp		102.78	1.59
Xport Pulp		399.48	6.17
Other		58.29	0.90
Total September		6,477.35	
October			
Pruned Domestic		0	
Pruned Export	`	0	
Partial Pruned		0	

Grade		Tonnes	%
S/A Grade		393.70	33.48
L Grade		133.42	11.35
R Grade		170.95	14.54
K Sawlog		72.70	6.18
K Rough		106.43	9.05
Pulp		267.40	22.74
O/S Pulp		0	
Xport Pulp		0	
Other		31.26	2.66
Total October		1,175.86	

2. Silviculture Contracts

All of the 515.8 hectares of the 2000/1 silviculture programme have now been completed.

The delay in completion of the silviculture is partly because of the Contractor undertaking land preparation work prior to replanting and subsequently assisting with the "daylighting" of the main road through Puketiro Forest to assist with the drying of the roads.

3. Plantation Forestry Operations

All efforts have been concentrated on the preparation of Puketiro for the new harvest contract. Representatives of both Rayonier New Zealand Ltd and McCarthy's Transport inspected the road and as a consequence a number of minor alterations were made. It was agreed to allocate a six wheel drive vehicle for the first few loads to assist with the bedding in of the road. The first trip was only moderately successful, with the truck departing with an empty trailer because of excessive camber on two or three corners. While this was being remedied we received almost five continuous days of rain and consequently had to metal the greater part of the road.
We still await the 1080 drop for the Akatarawas, which includes Valley View and Hukinga Forests. When this occurs the road through Valley View will be closed to all vehicles (including logging trucks) until it has been patrolled and all baits removed. This closure may last for up to 24 hours. We need to give the trucking company as much notice as possible, so that they can reschedule the workload for the trucks.

4. Forest Access

Access to all areas, except Maungakotukutuku, remains good. We are fortunate that all silviculture work has been completed in this forest and non-four wheel drive access is not required.

Parks and Forests have been advised that Curtis Flats are closed to recreational vehicle access because of the volumes of slash present from last year's pruning and the risk of fire.

As soon as the logging gets in full swing in the MOT blocks, we will start

planning the access route from Puketiro Road into Blowfly and Kaika Mako Blocks. This access needs to be planned in the knowledge of future harvest contracts, so that the distance to the public roads is minimised.

We have still to devise a communications system to ensure that loaded trucks are not required to stop on the grade above the Rallywood Bridge. We have had a proposal for an additional repeater, which with the extra radios required would cost in excess of $10, 000. I am still looking at other options that may be cheaper. In the meantime we are using cellphones to enquire from the residents of Rallywoods their travel plans for the day.

I do not want to go away from the traditional "see and be seen" rules which apply in all the forest areas.

The slips on the Rallywoods section of the road appear to have stopped, so hopefully we will not have any further disruption from this cause.

5. Market Trends

Markets appear to have remained static and the downward trend anticipated as a result of 11 September has not occurred. Medium-term prospects remain positive, with new export opportunities to China and the United States. Time will tell whether these predictions actually translate into markets ex-Wellington.

There is growing pressure for a debarking plant in the area to allow for the export of "clean" logs. The United States' market is dependent on being able to debark prior to shipment.