
Greater Wellington Water

November/December 2005

Operations Group

November/December 2005

Operations Group Review of Operations for the period ended 31 December 2005

1. Items of Note

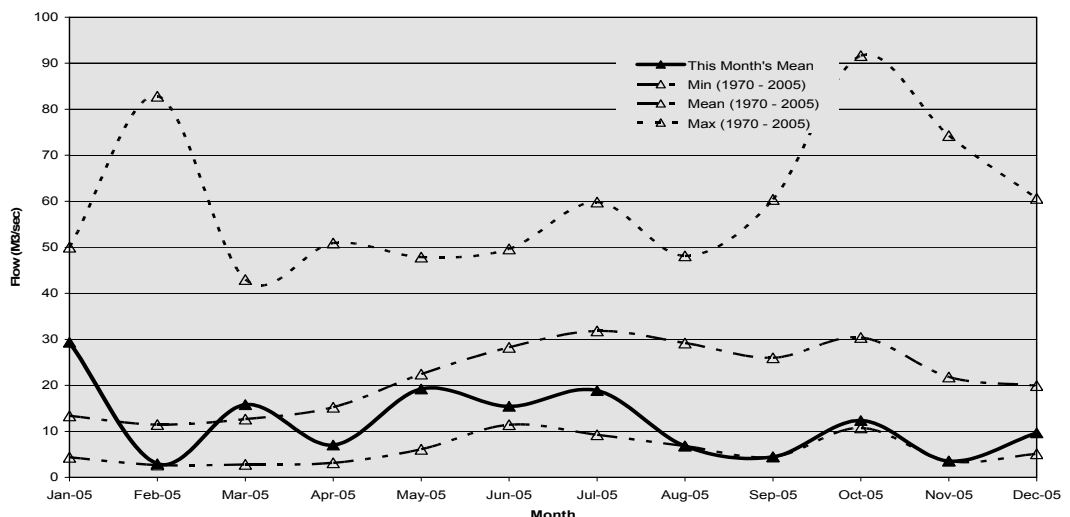
- A number of meetings were held regarding our planning for a future influenza pandemic. It is likely that the preparation work will proceed well into the New Year.
- Toxic algae in the Hutt River became in issue, with reports of dogs dying and people getting rashes from swimming in the river. Analysis results for water sampled at the Kaitoke intake have indicated that there were very small numbers of blue/green algae. Therefore, the risk to this source is negligible at the present time. Sampling at Kaitoke is carried out fortnightly.
- The requirements of the new *Drinking-Water Standards for New Zealand 2005* were finally confirmed and the necessary modifications have been made to our monitoring, control and reporting systems. The overall impact of the changes from the old Standards has not been as onerous as we thought they may be at this time last year.
- A meeting to discuss telemetry integration was held between representatives of Greater Wellington Water and Capacity. It is clear that, at the present time, the environment is not conducive to achieving any rationalisation of the Region's water supply telemetry and control systems. We will now continue with the planned separation of key parts of the joint telemetry and pursue the recruitment of an additional control systems technician.

2. Supply Situation

There were no supply issues for the period.

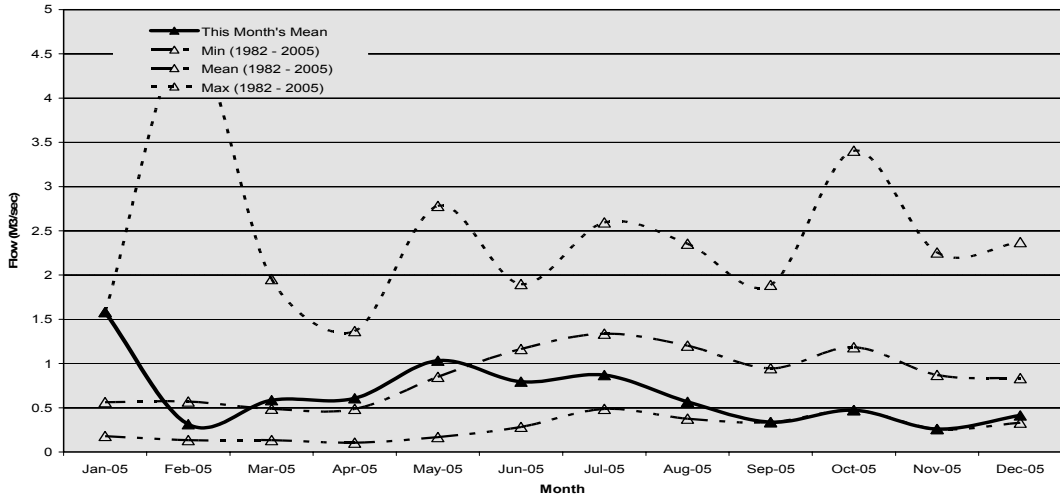
Hutt River Flows

The mean monthly flow in the Hutt River for November was a record low. During December the mean flow was just above minimum.



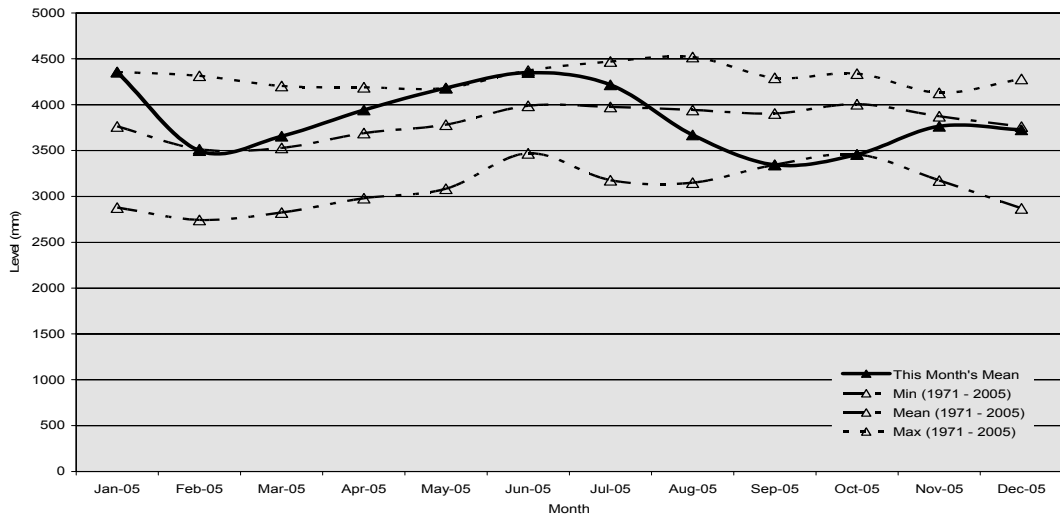
Wainuiomata River Flows

The mean monthly flow in the Wainuiomata River during November was the lowest on record. In December the mean flow was just above minimum.



Aquifer Levels

The water level in the Waiwhetu aquifer in both November and December was about average.



3. Treatment Plants

3.1 Wainuiomata

3.1.1 Quality

- There were no improvement opportunity forms or transgressions during the period.

3.1.2 Health and Safety

- There was one incident where a staff member received burns to their arm whilst using cutting equipment.

- Three staff attended an “outdoor first aid” course and two staff members attending a “breathing apparatus” training course.

3.1.3 Environmental

- There were no environmental issues during the period.

3.1.4 Operations and Maintenance

- A temporary repair was completed to the Little Huia intake post-February 2005 flood damage.
- The sludge thickener gearbox required repair.
- A manual operating exercise was carried out with staff members from the Engineering Consultancy Group and Strategy and Asset Group.
- The two yearly tunnel inspection by an Independent Qualified Person was carried out by Opus International Consultants Ltd.

3.2 Waterloo and Gear Island Water Treatment Plants

3.2.1 Quality

- There were no improvement opportunity forms or transgressions for the period.

3.2.2 Health and Safety

- There were three minor injuries during the period. One employee twisted their knee on the stairwell. One employee got lime in their face whilst cleaning up a spill. An electrician received an electric shock from wiring that was incorrectly coded. An investigation is in progress.

3.2.3 Environmental

- A lime spill, which occurred during reactive maintenance, was contained and disposed of in an appropriate manner.

3.2.4 Operations and Maintenance

- Reservoir B was cleaned out.
- Naenae Pump No. 2 was tripping on overcurrent faults. This is under investigation.
- Wellington Variable Speed Drive No. 3 was going out on thermal trip because of faulty componentry.
- Schedule vibration analysis on Wellington pumpsets has been completed by an Independent Qualified Person.

3.3 Te Marua

3.3.1 Quality

- The following improvement opportunity forms were raised:

IOF No.	IOF Details	IOF Status	Raised Date	CA Target Date
TM248	Pumping station FAC non-compliance. Turbidity >0.5 NTU for 5 minutes. Uncontrolled stopping and starting of Boost pumps by software contractor.	Closed	04/11/2005	15/12/2005
TM251	Because of to problems with replacement equipment on the Te Marua fluoride system, the dosing plant was off from 2200 hours 22 November till 0940 hours 23 November 2005	Closed	23/11/2005	24/11/2005
TM252	Because of problems with the fluoride dosing system the day before, The Te Marua Pumping Station composite sample had a low fluoride residual	Closed	24/11/2005	15/12/2005
TM253	51 MLD recorded as minimum flow over the Kaitoke weir on 3 December 2005. Bailey trend showed no one minute records to indicate this level.	Closed	04/12/2005	22/12/2005
TM254	When recharging the Te Marua Pumping Station main, after plant shutdown, air entered the instrumentation sample line causing the chlorine residual analyzer and turbidity meter to read incorrectly. 95.693 percent FAC compliant was recorded for the day	Closed	14/12/2005	
TM255	The Te Marua computer trends missed 6 minutes of data. This was because of updating the Te Marua tag control data base on Bailey	Closed	19/12/2005	17/01/2006
TM256	The Te Marua Pumping Station UPS failed between 0342 hours and 0506 hours. Because of this failure, the FAC compliance instrumentation was off line during this period	OPEN	21/12/2005	31/01/2006

3.3.2 Health and Safety

- There was on incident during the period when a plant operator received a blow to the head from a chemical tank when standing from a crouched position.

3.3.3 Environmental

- There were no environmental issues during the period.

3.3.4 Operations and Maintenance

- The new *Drinking-Water Standards for New Zealand 2005* were implemented on 22 December 2005.

4. Distribution

4.1 Health and Safety

- There was one minor incident involving cuts and grazes.

4.2 Environmental

- There were no environmental issues for the period.

4.3 Operations and Maintenance

- The first stage of the Haywards Hill deviation has been completed. This includes a new line valve, bypass and air valve plus valve chambers on State Highway 58.
- Excavation has commenced at Haywards Creek culvert on State Highway 2 to measure up for the 1,050 mm main deviation over the culvert.
- Work on the Te Marua split stream cross connection project has begun. Excavations between both 900 mm mains for the pipework installation have been completed.
- Further pipe specials were fabricated for the new Point Howard Pumping Station.
- For the Knights Road wellfield check valves, the gates/flaps only from the existing check valves at Penrose Street, Hautana Street, Colin Grove and Mahoe Street wells were removed.
- The filtration pipe and chamber above the Kaitoke weir were cleared for the Kaitoke weir sluice valve.
- Pipelines in Staithes Drive, Whitby, were marked out for the deviation of the 300 mm main and decommissioning of the 200 mm main for the new subdivision by Whitby Landholding Ltd.
- Pipe samples were provided from the 781 mm Karori to Waiapu Road main and the 972 mm main from State Highway 58 to Haywards to MPT Solutions for pipeline analysis.

4.4 Pipeline Leaks

- The 450 mm reservoir outlet main at Paraparaumu was repaired for Kapiti Coast District Council.
- Investigations carried out on the OK main in Tinakori Road to locate leakage were unsuccessful.

Utility Services Division Health and Safety Data from July 2005 - Total Injuries

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
PRODUCTION (+ 4 OPS ADMIN)													
Hours worked	24147	2316	2262	2313	3475	2429							Jul 2005 - Cut finger
Employee numbers	16	16	16	16	16	16							Jul 2005 - Injured back
Incidents	2	1	2	0	2	2							Aug 2005 - Cut finger
Days lost	0	0	0	0	0	0							Sep 2005 - Bruised hand / Blistered hand on nylon rope
Incidence rate (number of incidents per 100 workers)	13	6	13	0	13	13							Nov 2005 - Hit head on tank / Twisted knee from slipping on stairs
Frequency rate (incidents per 10,000 hours exposure)	8	4	9	0	6	6							Dec 2005 - Lime in eye / Head in contact with live wires
Severity rate (days lost to injury per 10,000 hours worked)	0	0	0	0	0	0							
DISTRIBUTION													
Hours worked	1227	1246	1332	1290	1977	1357							Jul 2005 - Vehicle accident [2 employees] / Bruised finger
Employee numbers	9	9	9	9	9	9							Aug 2005 - Minor burns to hand / Bruised finger / Cut and small burn to wrist
Incidents	2	3	2	1	1	0							Sep 2005 - Cut hand on pipe / Cut hand and knee on pipe
Days lost	11	14	0	0	0	0							Oct 2005 - Cut finger on flange
Incidence rate (number of incidents per 100 workers)	22	33	22	11	11	0							Nov 2005 - Burnt arm on cut pipe
Frequency rate (incidents per 10,000 hours exposure)	16	24	15	8	5	0							
Severity rate (days lost to injury per 10,000 hours worked)	90	112	0	0	0	0							
ENGINEERING CONSULTANCY													
Hours worked	1840	1716	1732	1808	2628	1816							
Employee numbers	12	12	12	12	12	12							
Incidents	0	0	0	0	0	0							
Days lost	0	0	0	0	0	0							
Incidence rate (number of incidents per 100 workers)	0	0	0	0	0	0							
Frequency rate (incidents per 10,000 hours exposure)	0	0	0	0	0	0							
Severity rate (days lost to injury per 10,000 hours worked)	0	0	0	0	0	0							
UTILITY SERVICES SUPPORT													
Hours worked	951	1076	1008	961	1295	882							
Employee numbers	7	7	6	6	6	6							
Incidents	0	0	0	0	0	0							
Days lost	0	0	0	0	0	0							
Incidence rate (number of incidents per 100 workers)	0	0	0	0	0	0							
Frequency rate (incidents per 10,000 hours exposure)	0	0	0	0	0	0							
Severity rate (days lost to injury per 10,000 hours worked)	0	0	0	0	0	0							

LABORATORY

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Hours worked	1078	1142	1219	1156	1681	1343							Aug 2005 - Bruised foot Aug 2005 - Sprained neck Nov 2005 - Bee sting on head
Employee numbers	7	7	6	6	6	6							
Incidents	0	2	0	0	1	0							
Days lost	0	0	0	0	0	0							
Incidence rate (number of incidents per 100 workers)	0	29	0	0	17	0							
Frequency rate (incidents per 10,000 hours exposure)	0	18	0	0	6	0							
Severity rate (days lost to injury per 10,000 hours worked)	0	0	0	0	0	0							

STRATEGY AND ASSET

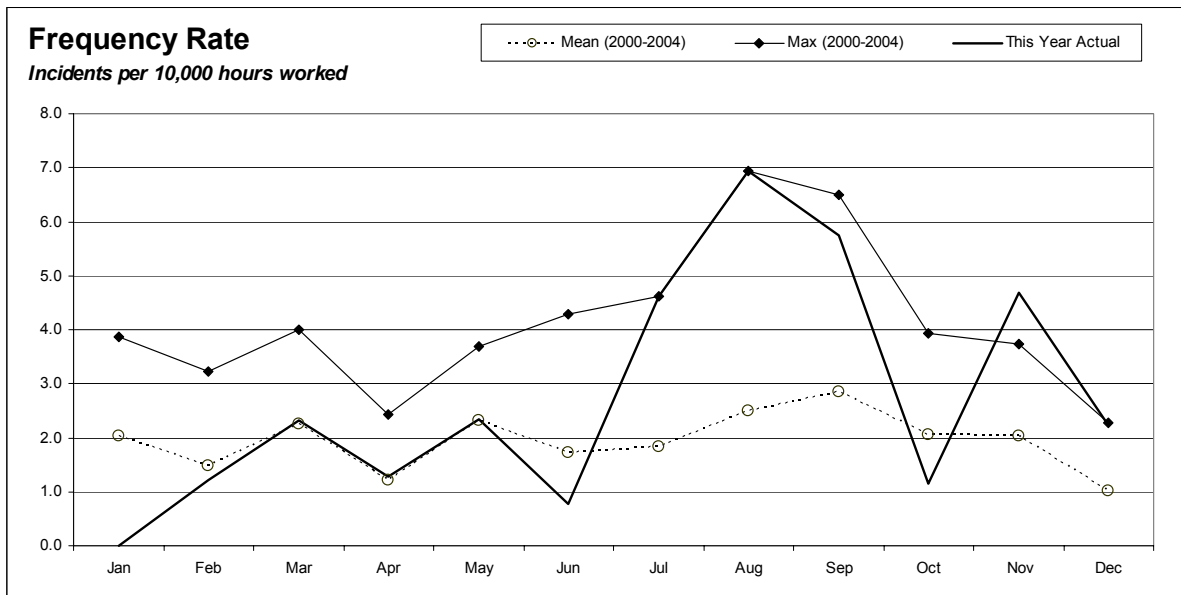
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Hours worked	712	644	688	676	1152	700							Nov 2005 - Strained back while lifting boxes
Employee numbers	5	5	5	5	5	5							
Incidents	0	0	0	0	1	0							
Days lost	0	0	0	0	0	0							
Incidence rate (number of incidents per 100 workers)	0	0	0	0	20	0							
Frequency rate (incidents per 10,000 hours exposure)	0	0	0	0	9	0							
Severity rate (days lost to injury per 10,000 hours worked)	0	0	0	0	0	0							

FORESTRY

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Hours worked	433	466	455	470	627	453							Sep 2005 - Sprained and cut hand Nov 2005 - Stung by stinging nettle on hand
Employee numbers	3	3	3	3	3	3							
Incidents	0	0	1	0	1	0							
Days lost	0	0	0	0	0	0							
Incidence rate (number of incidents per 100 workers)	0	0	33	0	33	0							
Frequency rate (incidents per 10,000 hours exposure)	0	0	22	0	16	0							
Severity rate (days lost to injury per 10,000 hours worked)	0	0	0	0	0	0							

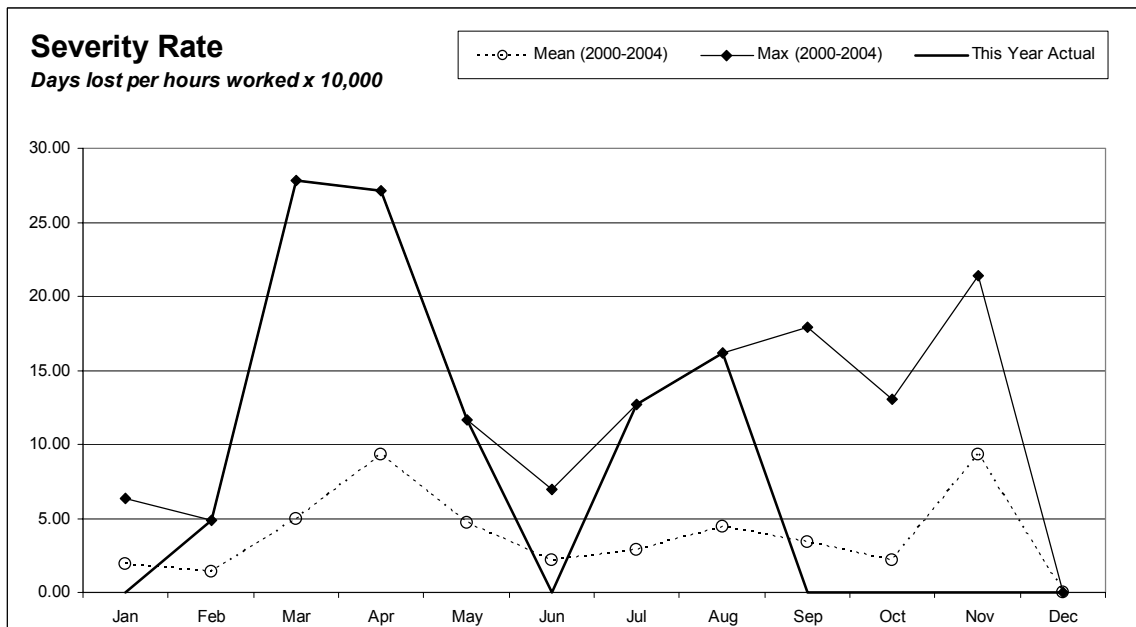
Utility Services Division Combined	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Hours worked	8653	8651	8696	8673	12834	8980						
Employee numbers	59	59	58	58	57	57						
Injuries	4	6	5	1	6	2						
Days lost	11	14	0	0	0	0						
Frequency rate (incidents per 10,000 hours exposure)	5	7	6	1	5	2						
Severity rate (days lost to injury per 10,000 hours worked)	13	16	0	0	0	0						

Incidence rate = (number of incidents/number of employees) x 100
Frequency rate = (number of incidents/person hours worked) x 10,000
Severity rate = (days lost/person hours worked) x 10,000



Incidents

Four incidents in July 2005
Six incidents in August 2005
Five incidents in September 2005
Five incidents in November 2005
One incident in December 2005



Lost Days

11 days lost in July
14 days lost in August

Strategy and Asset Group

November/December 2005

Strategy and Asset Group Review of Operations for the period ended 31 December 2005

1. Items of Note

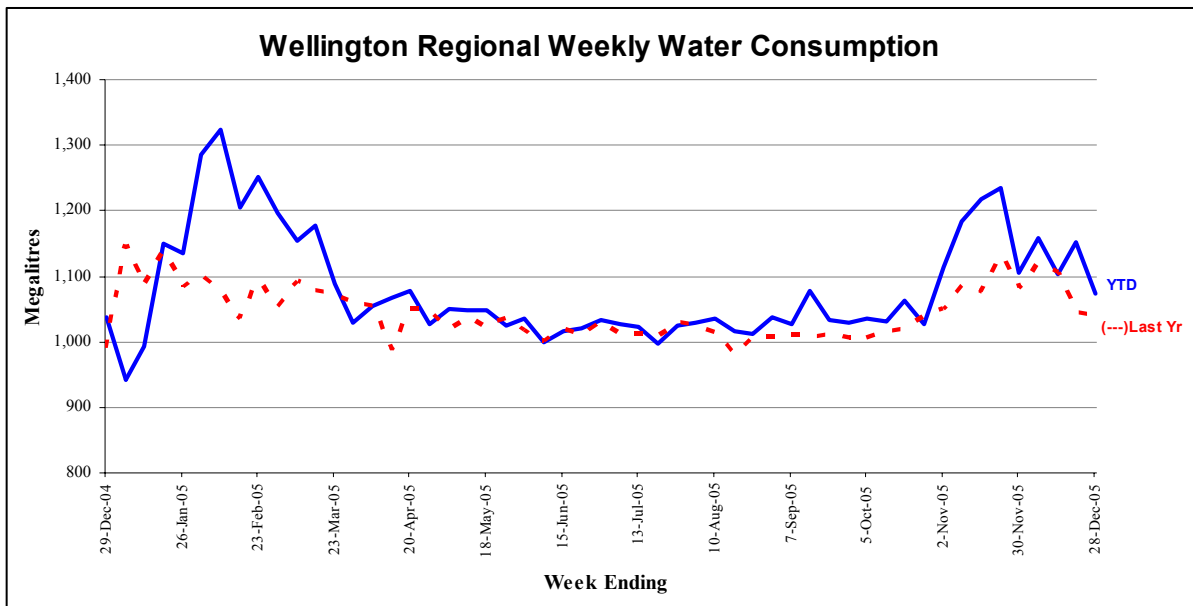
- November water use was about 10 percent up on last year. December was about the same.
- New water quality compliance reporting mechanisms have been put in place to satisfy the new *Drinking-Water Standards for New Zealand 2005*. Mechanisms to publicly notify consumers that the water is potentially plumbosolvent (soft) are being discussed with the customers.
- Construction of the replacement Karori Pumping Station and the duplication of the Kaitoke/Karori main at Haywards are both well advanced. However, both projects have incurred additional costs because of unexpected poor ground conditions.
- A feasibility report on the development of the Upper Hutt aquifer for water supply has been received from consultants.
- The draft technical background document for the Wellington Water Management Plan is close to completion. The main outstanding component is establishing how various levels of saving are reflected in the programme for new source development and in the profile of water levy increases.

2. Water Usage

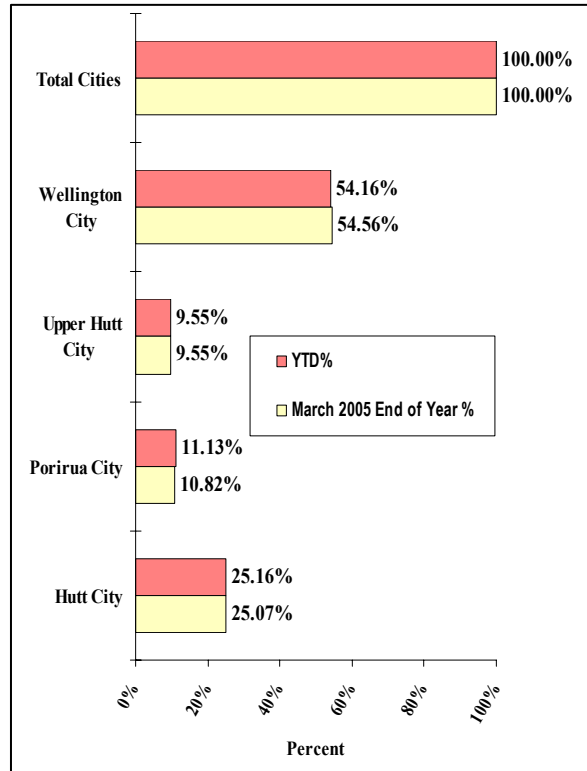
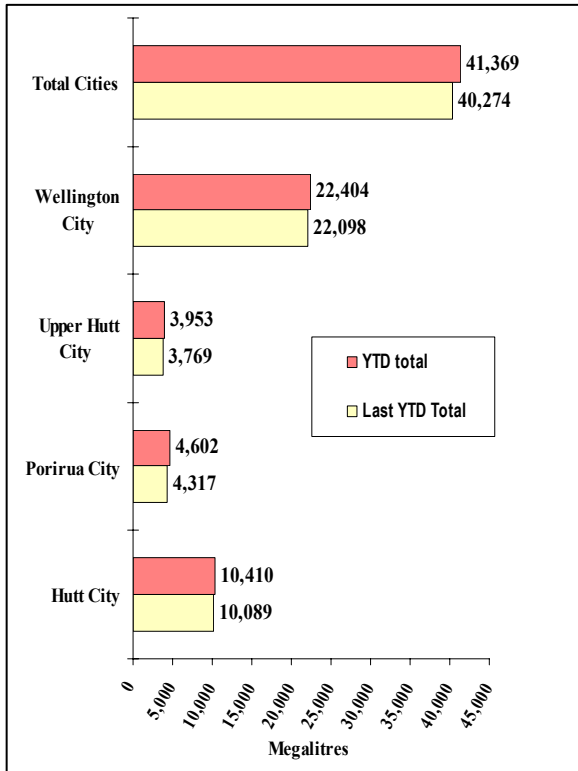
Consumption volumes are very similar to last year.

Graphs detailing the sales volume information are on pages 14 and 15.

Water Sold Over the Last 12 Months



Water Sold from 30 March to 28 December 2005



3. Asset Management

- The Capital Works budget for 2005/6 is \$5.937 million. Progress on the more significant projects included in the Capital Works Programme are as follows:
 - A Contract has been let for construction of the fourth (and final) stage of the Wainuiomata Catchment boundary fence. Budget \$100,000.
 - Modifications to the Te Marua Water Treatment Plant to enable lake and river water to be treated separately are well advanced. Budget \$300,000. Forecast final cost \$565,000.
 - Replacement and refurbishment of water treatment plant equipment. Budget \$620,000.
 - Relocation of the Kaitoke main on the Silverstream Bridge, including a \$60,000 contribution to the strengthening of the bridge. Budget \$140,000. Upper Hutt City Council has submitted a resource consent application for the strengthening works.
 - Duplication of the Kaitoke main between State Highways 2 and 58 to improve the seismic resistance of this section of main is well advanced, although a number of difficulties have been encountered. Budget \$1,200,000. Forecast final cost \$1,920,000.
 - Construction of the new Karori Pumping Station building is nearing completion. Contracts have been let for installation of pumpsets and pipework, and for electrical work. Budget \$1,820,000. Forecast final cost \$1,989,000.
 - A Contract has been let for construction of the new Point Howard Pumping Station. Budget \$312,000. Forecast final cost \$430,000.
 - Minor work. Budget \$300,000. Forecast final cost \$516,000.
 - Seismic protection. Work is proceeding on strengthening reservoir inlets, providing emergency connection points and other minor works. Budget \$100,000. Final forecast cost \$159,000.

Additional funding will be required in order to complete the Capital Works Programme this year. A separate Committee report sets out the reasons for this in detail.

- Wellington City Council has begun construction of a new pumping station located near the Grenada Landfill as part of its Northern Suburbs Development Plan. The work is being managed by a consultant employed by Wellington City Council. The work is being funded by the Wellington City Council but Greater Wellington Regional Council will take over ownership of the assets on completion. Therefore, officers are working very closely with the consultant to ensure the completed project meets Greater Wellington Water requirements.

- A second stage of studies of the potential to take water from the Upper Hutt aquifer is complete and the report submitted. More detailed studies including the drilling of two investigation bores to confirm the availability of water are now being planned.
- Environmental, planning, geological, hydrological and engineering studies are proceeding on possible storage sites at Pakuratahi, Skull Gully and Whakatikei. These are preliminary studies aimed at identifying matters that will require more detailed study in order to confirm the feasibility, productivity, cost and environmental impacts of dams if they were built at these sites.
- Consultants have been engaged to undertake studies of the Hutt River in order to determine the environmental impact of reducing the minimum low flow downstream of the Kaitoke weir. A methodology for habitat studies is being developed and a workshop with stakeholders is planned for mid-February.

4. Quality Assurance

- The new *Drinking-Water Standards for New Zealand 2005* came into force on 31 December 2005. New reporting mechanisms complying with the new Standard have been in place at Te Marua since 30 November and at Wainuiomata since 19 December 2005. Raw water sampling complying with the new Standard is also in place. Monitoring in the distribution network, except the unchlorinated zone, is to be changed to chlorine testing. However, direct testing for *E. coli* will continue for the first quarter. Either will satisfy the new Standard. Further discussions have been held with the customer authorities and with other suppliers regarding notification of the requirement to flush taps before drinking the water in order to avoid the risk of ingesting heavy metals.
- A revised proposal by the Ministry for the Environment to establish a National Environmental Standard for drinking water sources has been notified for submissions. A submission on behalf of the Council as a whole has been prepared by Environment Division staff.
- The A1 grading for the Wainuiomata Water Treatment Plant has been reconfirmed. Te Marua has achieved compliance with all aspects of the *Drinking-Water Standards for New Zealand 2000* in 2004, including aesthetic requirements, and is expected to also receive an A1 grading. However, staff changes at Hutt Valley District Health Board have delayed consideration of gradings of the other plants and the wholesale distribution zones. Waterloo and Gear Island plants are currently listed as ungraded.

5. Environmental

- Rehabilitation and lowering of the Wainuiomata Lower Dam spillway to provide an opportunity for the development of a wetland upstream has been delayed because of the high cost of the work proposed. The engineering of the project has been re-evaluated and altered to reduce the cost. Construction in 2006/7 is envisaged.
- Design work has begun on a larger culvert for Sinclair Creek, just upstream of the Wainuiomata intake. The existing culvert is regularly overtopped, making the road impassable, and acts as a barrier to fish. It is to be replaced with a much larger culvert that will allow fish to move up Sinclair Creek. Construction is planned in 2006/7.
- Design of power factor correction equipment to be installed at the Gear Island and Wainuiomata Water Treatment Plants, and Ngauranga Pumping Station is complete. This equipment will improve electrical efficiency and reduce energy use.
- Three sentinel wells are to be drilled along the Petone Foreshore and equipped with instruments that will provide early warning of saline intrusion into the Waiwhetu aquifer. This work is being undertaken jointly with the Resource Investigations Department. Investigation and design work is about to begin.

6. Catchment Management

- A survey of Judas goats in the Hutt Catchment produced a cull of 4 goats, 3 pigs and 21 deer. The low number of goats and pigs was encouraging and, while the number of deer surprised, numbers have been reduced.
- Bird number monitoring in the Hutt Catchment has shown a small increase over the 2004 count. In the Wainuiomata/Orongorongo Catchment numbers continued the rate of increase recorded in 2003 and 2004.
- Advertisements are about to be placed inviting hunters to ballot for the right to take part in the annual hunt in the Wainuiomata/Orongorongo Catchment. The advertisement includes a reference to last winter's 1080 drop as evidence of deer has been reduced of late.
- The two guided trips in the Wainuiomata Catchment in November were successful, with 74 participants. However, the guided walk on 11 December attracted only 5 participants.
- The alignment for the last section of the Wainuiomata Catchment boundary fence has been cleared by staff members and Tenders invited for construction. Tenders close towards the end of January 2006.

- The usual instances of accidental and deliberate trespass and vandalism in the vicinity of Wainuiomata Water Treatment Plant continue and are dealt with by the Ranger as they arise.

7. Marketing

- Draft Wellington Water Management Plan. The issue of how to identify a water saving target that is meaningful for our supply area is being investigated. . Our supply augmentation decisions reference peak demands, so a meaningful saving target should reflect that in some way. Completion of the technical document of the draft Wellington Water Management Plan is waiting on our being able to identify a workable method for assessing whether any given level of demand savings target is actually being achieved. In November, NIWA was asked for a proposal, including how to review actual demand over a summer period to ensure that system yield was not reduced. This was under consideration by NIWA at the end of December. All other aspects of the draft Wellington Water Management Plan technical document that are not dependent on the outcome of NIWA's review are expected to be completed in January.
- Water Supply History Update. A qualified historian has been working since early September to research the period 1973 to 2005. This work has included interviews with Stuart Macaskill and John Morrison, as well as considerable desk research. Text for the period since 1973 has been written, while the original text has received limited editing, for consistency. The full draft was delivered in early December for our review. Design and publication of the updated history is scheduled for the first half of 2006.
- Water Supply Annual Reporting. The Water Supply Annual Report 2004/5 was completed and published in late November. Copies were distributed to our customers, other identified stakeholders and libraries.
- Summer Water Conservation. After discussion with Clemenger BBDO about options for this summer's promotional activity arrangements were made for a radio and press advertising campaign but increased the campaign's presence in both relative to last summer. The radio and press advertisements developed for last summer's campaign will be used again. The campaign is branded *Be the Difference* and has been co-ordinated with that programme's dedicated website and newsletter communications. The background to our water conservation activity and water wise tips were carried in a two page spread in the December issue of GWRC's newspaper *Elements*. Our customers have been encouraged to carry consistent copy in their respective council publications. Copy was offered to each council and supplied where requested. Upper Hutt and Porirua ran stories in December, while Wellington has advised that it will in January. Our advertising has been scheduled to cover the period 9 January until 11 March. Activity can be cancelled at relatively short notice.

- **Summer Water Supply.** With the Region's weather continuing the relatively dry and warm trend dating back to July 2005, greater attention than is usually needed was given to tracking climate forecasts and actual conditions during November and early December, and keeping our customers abreast of the situation. Flows in both the Wainuiomata and Hutt Rivers were at record low levels for our current gauging sites during November. However, there were no immediate supply concerns and all demand was met.
- **Water Supply Service Level Agreement.** After several months without progress a meeting with Capacity in November resulted in agreement to review our list of concerns (dating back to May 2005) and produce an updated draft by Christmas 2005. This was duly received and will be reviewed shortly.
- **Treatment Plant Visits.** November was a particularly busy month for treatment plant visits. We hosted seven groups, involving 140 visitors.
- **Media.** One news release was made, publicising the *Consumer* magazine water taste test that had Wellington's tap water jointly favourite with Evian after a blind tasting.

8. Projects Undertaken by Engineering Consultancy for Strategy and Asset

- **Wainuiomata/Orongorongo Catchment Fence**

The access track and route of the fence line is being cleared in preparation for erection of the final stage of the fence. Tenders have been invited for erection of the fence.
- **Wainuiomata Lower Dam**

A review of the design for lowering the spillway is proceeding.
- **Future Water Source Pipelines**

The route of a pipeline from the Pakuratahi Dam site to Te Marua Water Treatment Plant is being investigated. A report has been prepared determining a route and costs for a pipeline from the Upper Hutt aquifer to Te Marua Water Treatment Plant.
- **Wainuiomata Water Treatment Plant Outlet Control Valve**

Installation drawings are being prepared to relocate this control valve to Tunnel Grove valve chamber. Delivery of the new control valve has been delayed to February 2006 because of a manufacturing fault. Replacement of air valves on the Wainuiomata pipeline is being investigated to reduce the effects of air slam.

- **Power Factor Correction Equipment**
Sinclair Knight Merz Ltd has been commissioned to design power factor correction equipment to be installed at three facilities - Wainuiomata Water Treatment Plant, Gear Island Water Treatment and Ngauranga Pumping Station.
- **Wainuiomata Pumping Stations Variable Speed Drives**
Installation of variable speed drivers at the Moores Valley and Wainuiomata Pumping Stations is being arranged. The Contract for the supply and installation of new switchboards was awarded to the Trade Services Electrical Contractor. The switchboards are being fabricated.

The variable speed drives will even flows and improve efficiency of the pumps.
- **Duplicating Te Marua to Karori Pipeline at Haywards**
The Contractor has completed the section alongside State Highway 2 and along State Highway 58. Loose unstable ground has been encountered on the proposed pipeline route through Transpower land. The route has been revised to avoid this area.
- **Emergency Water Supply Points for Upper Hutt City Council**
The drawing detailing a cross connection at the Fergusson Drive/Camp Street intersection has been modified to include a pressure reducing valve. Installation of this cross connection will be after the high summer demand period.
- **Pukerua Bay Bypass Pipeline**
Installation of a bypass pipeline around the Pukerua Bay Reservoir is being investigated.
- **Karori Pumping Station Replacement**
Construction of the replacement pumping station in Northland Tunnel Road is progressing satisfactorily. The reinforced concrete roof is being formed. Contracts have been awarded for installation of the pumpsets and pipework, and for manufacture and installation of the switchboard.
- **Karori Pumping Station Replacement - External Pipelines**
The Contractor installing the pipelines between the pumping station and existing mains has completed the first stage of the Contract and moved off-site. The remaining portion of pipeline will be installed after the pumping station building is complete.
- **Point Howard Pumping Station**
The underground pumping station at Hutt Park is being replaced. The proposed site of the new pumping station is alongside Seaview Road.

The subdivision consent has been received. The Contract for construction of the building has been awarded to Schwass Construction Ltd. Work on-site is expected to commence mid-January 2006.

- Hutt Road Balancing Tank

A Contract has been awarded to undertake some minor work on the abandoned Hutt Road balancing tank to reduce the hazards on this site.

Engineering Consultancy Group

November/December 2005

Engineering Consultancy Group Review of Operations for the period ended 31 December 2005

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. Other projects are as follows:

- Proposed GWRC/WCC/Capital and Coast District Health Board Reservoir

Additional comments on the draft agreement between the three parties sharing in this 35 million litre reservoir project have been provided to the project manager.

- Stuart Macaskill Lakes Tower Strengthening

A draft peer review of the proposal to strengthen the lake towers has been received from the Consultants.

- History Project

The department manager has had a significant part in providing information to the historian who has been engaged to prepare a history of the water supply

- Mainland Island

In conjunction with the Parks and Forests and Biosecurity Departments, the bait stations have been installed in the Wainuiomata Mainland Island in Skull Gully and possum traps have been installed on the perimeter.

A Consultant has been engaged to prepare a strategic plan. Comments have been provided on the first draft.

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.

- Messines Road Reservoir

Comments were provided to WCC on the inlet pipework details to this replacement reservoir.

3. Work Carried Out for Wellington City Council

The amount of new work being released by Capacity on behalf of WCC has almost dried up. Current projects under way are:

- Northern Water Main Renewals
Comments on the alternative proposals for the replacement rider mains in Churton Drive have been received and final details are now being prepared.
- Alexandra Road Zone
This project is to prepare details of the pipework alterations required, so that the newly installed pumps at the Roseneath Reservoir can be commissioned. Initial planning work is now complete.
- Updating of Operational Plans
When the WCC plan records were the responsibility of this organisation, they were regularly kept up-to-date. However, this was not continued after the responsibility was taken over by Capacity. A request was received for us to update the changes that have occurred over the last 3 or 4 years. We were fortunate to be able to engage a former employee to carry out much of this important task, which is now complete.

4. Work Carried Out for Flood Protection

Current projects under way are:

- Norfolk Street Floodgate
This hinged gate will be required to close a vehicle access through the stopbank, to prevent the Norfolk Street area flooding if the Hutt River is very high.

The installation of these gates and ancillary work is now almost complete.
- General Draughting Work
The Engineering Consultancy Group provides most of the draughting services for Flood Protection.

5. Corporate Projects

- Pandemic Preparation
The departmental manager is leading the group responsible for preparing the pandemic response plan. As an essential service, it is vital that we are prepared to operate at a very high level, should a pandemic occur.

Various emergency supplies have been purchased and stockpiled for use as required. Investigations are under way to provide a web site accessible to staff from home, so that information can be disseminated.

Laboratory Services

November/December 2005

Laboratory Services Department Review of Operations for the period ended 31 December 2005

1. Items of Note

- Laboratory finances finished in the black at the halfway point and for the year to date.
- Our advertisement for a Laboratory Microbiologist attracted about 10 applicants offering quite a wide variety of attributes. Of those most suitably shortlisted, one prospect has been interviewed, with another planned for early January. Several on the shortlist withdrew their applications.
- Our annual IANZ “surveillance assessment” was carried out this period, resulting in the recommendation for the continuation of our laboratory accreditation to conformance Standard ISO 17025:1999. The assessor complimented the laboratory on the co-operation and hospitality received during the visit.
- We have had several lukewarm approaches to our *Cryptosporidium/Giardia* (testing) promotion by way of the earlier New Zealand Water and Wastes Association trade display and a Christmas mailer. The *Drinking-Water Standards for New Zealand 2005* method for protozoa analysis has not been finalised at this point.

2. Business Summary

2.1 Quality

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

2.2 Health and Safety

There were no accidents or incidents reported during the period.

Plantation Forestry

November/December 2005

Plantation Forestry Department Review of Operations for the period ended 31 December 2005

1. Log Harvest Contract

A much better period, with harvesting based on Valley View and Hukinga. The ridgeline trees in Longspur were at best variable with a high proportion of export. As the crew has moved off the main ridge, the ratio of export to domestic sawlog has improved. This stand was entirely ground based so good volumes were produced. Once operations commenced in Hukinga there was an instant improvement in both volumes and grades. As this coincided with a modest improvement in sawlog prices, it was a win/win situation. About this time the average quarterly price of diesel purchased by the logging contractor and Rotorua Forest Haulage exceeded \$0.90/litre and under the terms of the Contract triggered a price increase. Cartage rates increased 2 percent and logging rates by \$0.18/tonne.

The good production generated by the logging crews was somewhat undermined at the end of the quarter. Because of an ample supply of logs and the mills running a “balancing act” to ensure they finished the year as planned and without logs in the yard, our crews effectively felled their last tree for the year on Tuesday, 13 December. Unfortunately the trucking companies were playing “ducks and drakes” and the logs on the skids were not cleared until the following Tuesday.

I have subsequently discussed this issue with Rayonier and they have arranged a meeting on-site with the trucking company in the New Year. From what I have gleaned the problem lies in the main with the local subcontracted companies, which either do not provide trucks they have promised, redirect trucks, allow their drivers to alter pick up points and do not advise despatch in Rotorua if any of the aforesaid occurs. A further problem is trucks that take their Friday loads home and deliver on Monday. As each week’s allocation into the mills stands alone, Rayonier gets accused of undersupplying one week and gets locked out for oversupplying the following week.

Production for November and December is shown in tables 1 and 2, page 28.

2. Silviculture Contracts

The silviculture contracts are still proceeding relatively slowly because of other commitments and staffing difficulties. Despite this, both contractors are confident that they will complete their contracted area by the end of the financial year. At this stage they have completed 150.1 ha out of 257.7 ha.

3. Plantation Forestry Operations

With logging in full swing most of the staff time has been related to ensuring the operations continue to run smoothly.

Table 1 - Valley View - Output by Grade - Longspur

Grade	November		December	
	Tonnes	%	Tonnes	%
Pruned	0	0	0	0
Short Pruned	0	0	0	0
S/A Grade	301.11	13.87	533.21	22.97
L Grade	0	0	0	0
R Grade	205.94	9.49	216.71	9.34
K Sawlog	648.35	29.87	580.21	25.00
Roundwood	0	0	0	0
K Rough	494.49	22.78	507.37	21.86
Dom Rough	98.68	4.55	100.74	4.34
Pulp	265.39	12.23	157.96	6.81
O/S Pulp	43.44	2.00	0	0
Export Pulp	24.74	1.14	224.98	9.69
Firewood	88.59	4.08	0	0
Total	2,170.73		2,321.18	

Revenue for November was \$31,514.98 at an average of \$14.69 per tonne

Revenue for December was \$43,739.21 at an average of \$18.81 per tonne

Table 2 - Output by Grade - Hukinga]

Grade	November 2005		December 2005	
	Tonnes	%	Tonnes	%
Pruned	0	0	0	0
Short pruned	208.52	6.35	33.98	1.36
S/A Grade	1,121.64	34.16	840.57	33.63
L Grade	12.67	0.39	28.33	1.13
R Grade	570.37	17.37	414.81	16.60
K Sawlog	634.83	19.34	462.57	18.51
Roundwood	0	0	0	0
K Rough	366.65	11.17	353.89	14.16
Dom Rough	0	0	0	0
Pulp	325.86	9.92	365.22	14.61
O/S Pulp	12.77	0.39	0	0
Firewood	30.01	0.91	0	0
Total	3,283.32		2,499.37	

Revenue for November totalled \$90,141.38 at an average of \$27.45 per tonne

Revenue for December totalled \$65,401.00 at an average of \$24.57 per tonne

Total revenue for November was \$121,645.88 at an average of \$ 22.31 per tonne

Total revenue for December was \$109,140.57 at an average of \$21.79 per tonne

3. Plantation Forestry Operations

With logging in full swing most of the staff time has been related to ensuring the operations continue to run smoothly.

Following the completion of harvesting through the Tunnel Gully recreational area and after a number of instances of trespass by motorcycles, the original fence between the public area and the forest stand was reconstructed.

We were fortunate to get the opportunity to purchase a disused 20,000 litre tank. This has been placed on the main ridge in Puketiro Forest as a firefighting water source. Consideration was given to keeping the tank topped up by catching rainfall but in the interim it has been decided to fill it up with a tanker and top it up each year. This allows the tank to be buried to protect it from being shot up.

A day was spent with our forest valuer reviewing the stand data for the Maungakotukutuku blocks. This involved walking the perimeter of the block and will result in some minor changes to the next valuation.

A GPS has been used to record the planting boundaries within the Harris block at Puketiro. This will hopefully defer the need to fly and photograph the blocks by enabling the maps to be updated with the GPS data.

4. Forest Access

Maungakotukutuku access remains the only significant problem, with the only access requiring two crossings of the Maungakotukutuku Stream.

The high level of logging activity over Valley View Road has resulted in higher maintenance requirements. Generally this maintenance consists of spreading fines to provide a suitable running surface. After a loaded truck and trailer become immobile in the water table below Cannon Point the water table was filled with large rocks, which hopefully will allow the trucks to “wander” a little without getting stuck but still allow water to be cleared. At this time fine needs to be spread over about 2 km of Valley View Road.

About seven years ago when this round of logging commenced in Valley View there were issues with dust drifting across the river from the first 2 km of road. To prevent this, millings were spread. These have proved a great success, with the present surface having been spread about five years ago and pothole maintenance required since.

One issue that is of concern is the section of road between 8 km and 9 km on Valley View Road. This is the ruling grade for loaded trucks coming out of the Hukinga. In the past, apart from some early difficulties with traction in the late 1990s, there have been no problems. However, since the cartage contract was won by Rotorua Forest Haulage, they have subcontracted

Burlings Transport from the Wairarapa. The predominant truck make used by Burlings on our haulage is Mitsubishi. These trucks have proved to be unable to handle this section of road, except under perfect conditions. All American and European trucks have coped with this section without difficulty and under any conditions. The major problem is that once one truck has stalled it has generally broken the surface on the road, which tends to ensure all following trucks of the same make stall also.

To regrade this section of the road would be a significant expense and result in the loss of many trees in the adjoining stands which are not yet mature. Logging in the Hukinga should be completed in about 2 months and the next substantial harvest in the Hukinga is not programmed until 2015.

In the meantime we are in discussion with Rotorua Forest Haulage to find a mutually satisfactory solution.

5. Market Trends

Although the New Zealand dollar drifted lower prior to Christmas, it appears to have recovered and continues to be a real constraint on prices. Fortunately domestic sawlog prices have remained at reasonable levels and while export prices have not been as good as we might like at least they have been maintained with freight reductions compensating for the dollar.

The downside is that pruned log prices are very soft, with the mills unable to trade into the United States at current prices. We have been fortunate to be able to dispose of the short pruned logs that are coming out of Hukinga.

The talk of housing start reductions and falling business confidence is not good - unless it leads to a weakening of the dollar.

We have not been able to revitalise the firewood market we accessed earlier in the year. Hopefully as winter draws nearer they will be able to sell their present stockpile and will actively seek more product.