## **Greater Wellington Water**

## **Operations Group**

# Operations Group Review of Operations for the Period Ended 31 August 2003

## 1. Items of Note

- The high numbers of algae (non-toxic) in Lake 2 remain.
- Because of the 1080 operation in the Hutt Catchment, Te Marua was operated on lake water from 28 July to 6 September. During the latter part of this period Lake 2 water was used which, although treatable, provided the plant technicians with real challenge and caused the chemical costs to rise sharply.
- The dry period following the 1080 operation was longer than anticipated. Although this was good from the point of view of the effectiveness of the 1080, it meant that the Stuart Macaskill Lakes were drawn down to relatively low levels. Te Marua was kept at low flows for the duration of the operation and Wainuiomata/Waterloo supplemented the high level zone via Ngauranga.
- With the help of Information Technology staff, we have commenced development of an on-line, web based, form for the collection of maintenance, call-out and asset information. It is hoped that the new form will reduce administration workload and give us more consistent information for the purpose of analysing unplanned maintenance and breakdown costs.
- Operations staff have been providing support to Masterton District Council in relation to the recent *Cryptosporidium* incident.
- Planning has begun for a "full flow" trial on the Te Marua to Johnsonville system.

## 2. **Supply Situation**

The bi-monthly seasonal forecast for Wellington for September/October, issued by the Meteorological Service, is as follows:

Rain Slowly returning to normal after several very dry

months

Wind About or less than normal
Temperature Some erratic extremes
Sunshine Continuing above normal

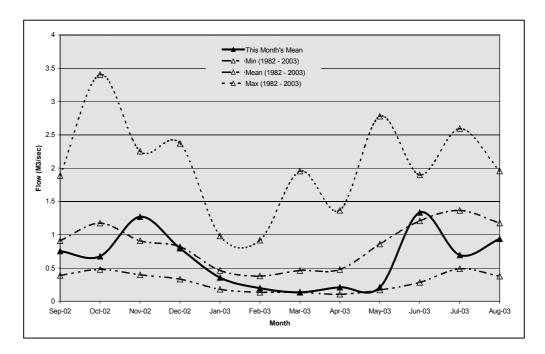
Confidence Lower to moderate

During winter the low centres have been passing to the north of you giving you an easterly flow. In September the lows are more likely to be passing over the region. This will bring varied wind flows, approximately weekly

bouts of rainfall, and slightly warmer conditions due to higher overnight minimum temperatures. Temperature extremes are unlikely. Rainfall totals should gradually return to normal. There may be a few strong southeasterly episodes. The extra warmth in the soil should aid steady grass growth, but soil moisture levels may remain below normal until late in October.

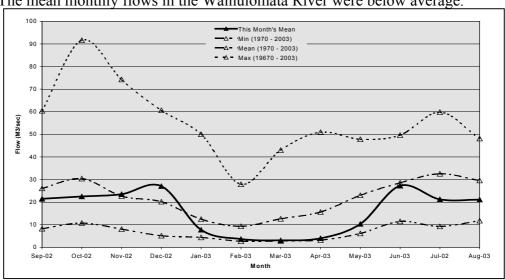
## **Hutt River Flows**

The mean monthly flows in the Hutt River for the period was below average.

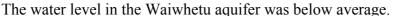


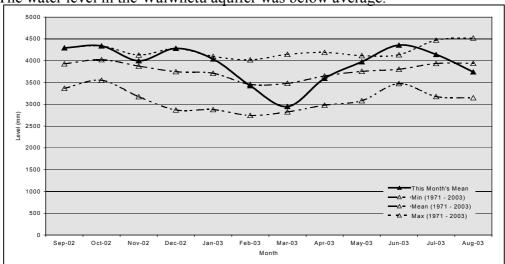
## **Wainuiomata River Flows**





## **Aquifer Levels**





## 3. Treatment Plants

### 3.1 Wainuiomata

## 3.1.1 **Quality**

There are no quality issues to report.

## 3.1.2 **Health and Safety**

There are no accidents or incidents to report.

## 3.1.3 **Operations and Maintenance**

- The microhydro broke down on 21 August because of alternator wear. It was repaired and reinstated on 25 August.
- Filter No. 1 actuator was sent for repair and was reinstalled.

#### 3.1.4 Plant Tours

- Opus Principles and Trends Group
- Hutt City Council Health Protection Group

## 3.1.5 Capital Works Projects

- Tender Documents were issued for the PLC replacement.
- A proposal for upgrading the Wainuiomata River intake has been

submitted.

- Installation of the centrifuge speed control was completed.
- Installation of the catchment vehicle wheel wash was completed.

#### 3.1.6 **General**

- A fallen tree was removed upstream of the Big Huia intake.
- New staff completed a first aid course.

## 3.2 Waterloo Water Treatment Plant

## 3.2.1 Quality

There are no quality issues to report.

## 3.2.2 Health and Safety

There are no accidents or incidents to report.

## 3.2.3 **Operations**

- Annual cleaning of the control reservoirs was carried out.
- Aeration trials will soon be able to continue after installation of a new reservoir interconnection valve.

#### 3.2.4 Plant Tours

There were no tours during the period.

## 3.2.5 Capital Works Projects

- Construction of the emergency generator shed is almost complete, with only the power and lighting to be installed.
- The installation of the new standby generator is complete and commissioning is under way.

#### 3.3 Gear Island

#### 3.3.1 **Quality**

There are no quality issues to report.

## 3.3.2 Health and Safety

There are no accidents or incidents to report.

## 3.3.3 **Operations**

• Refurbishment of the site laboratory/instrument room is now complete.

#### 3.3.4 Plant Tours

There were no tours during the period.

## 3.3.5 **Capital Works Projects**

- Installation of additional pH meters for triple validation is complete.
- Wellfield scour installation is near completion.

#### 3.4 **Te Marua**

## 3.4.1 **Quality**

There are no quality issues to report.

## 3.4.2 **Health and Safety**

There are no accidents or incidents to report.

## 3.4.3 **Operations**

- An underwater camera and associated hardware and software have been procured to allow inspection of the lakes inlet pipework and tower base to be carried out.
- Repairs to leaks on the Kaitoke strainer house pipework were completed during the 1080 operation.

#### 3.4.4 Plant Tours

There were no tours during the period.

## 3.4.5 **Capital Works Projects**

• Prices are being sought for the replacement of the filter differential pressure transmitters.

## 4. Distribution

## 4.1 Quality

There are no quality issues to report.

## 4.2 **Health and Safety**

There are no accidents or incidents to report.

## 4.3 **Operations**

• All scheduled maintenance activities carried out as planned.

- Porirua low level branch line started servicing the double air valves and isolation valves, and fabricated valve spindles and brackets.
- Porirua low level branch line (Warspite Avenue) excavated to repair a leak and a new section of 290 mm steel pipe was cut in.
- Ngauranga valve chamber finished the walkways, lifted in the lids and fabricated valve spindles and brackets for the chamber valves.

## 4.4 **Projects**

- Hutt Park Deviation Fabricated and fitted the bends from the new valves to the new pipe special underneath Awamutu Stream. Boxed and poured the anchor blocks.
- Hutt Park Relaying Installed the new pipeline from the Awamutu Stream crossing through Hutt Park Roundabout to Croft Grove. Tommed both ends and pressure tested the new pipework. Made the final connections at both ends. Disinfected the main from Randwick to Gear Island, then flushed and dechlorinated. Flushed from Randwick to Korokoro Stream.
- Remote Meter Reading 10 sites complete. Abbey Systems Ltd is developing reports.
- Options are being investigated for modifications to the distribution telemetry system, so that it can operate independently of the Wellington City Council system.
- Work has commenced on updating pipeline drawings to show asset details.

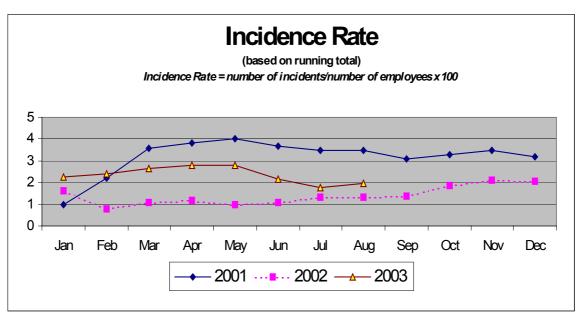
## **Utility Services Division Health and Safety Data 2003 - Total Injuries**

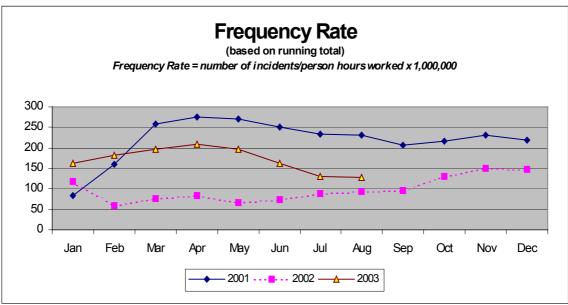
PRODUCTION (+ 1 OPS ADMIN)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	2,574	2,202	2,449	2,139	1,941	1,968	3,516	2,380	0	0	0	0 .	January = Contractor - electric shock
Employee numbers	16	16	16	16	16	16	18	18	0	0	0	0 1	March = Sprain
Injuries	1	0	1	2	1	0	0	1	0	0	0	0 /	April = Back sprain
Days lost	0	0	1.5	2	0	0	0	0	0	0	0	0 1	May = Cut finger
Incidence rate (number of incidents per 100 workers)	6.25	0	6	13	6.25	0	0	5.55556	0	0	0	0 /	August = Achilles tendon/foot sprain
Frequency rate (incidents per 1,000,000 hours exposure)	389	0	408	935	515.331	0	0	420.256	0	0	0	0	
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	612	935	0	0	0	0	0	0	0	0	
DISTRIBUTION	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	March = Jarred lower back/inflammation of left hand fingers
Hours worked	1,390	1,258	1,414	1,204	980	1,321	1,760	1,389	0	0	0	0	
Employee numbers	9	9	9	8	8	8	8	8	0	0	0	0	
Injuries	0	0	1	0	0	0	0	0	0	0	0	0	
Days lost	0	0	0	0	0	0	0	0	0	0	0	0	
Incidence rate (number of incidents per 100 workers)	0	0	11	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	0	0	
Severity rate (days lost to injury per 1,000,000 hours worked)	0	0	0	0	0	0	0	0	0	0	0	0	
ENGINEERING CONSULTANCY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	1,448	1,572	1,564	1,464	1,360	1,636	2,388	1,764	0	0	0	0	
Employee numbers	11	11	11	11	11	12	12	12	0	0	0	0	
Injuries	0	0	0	0	0	0	0	0	0	0	0	0	
Days lost	0	0	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	0	0	
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	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	0	0	
UTILITY SERVICES SUPPORT	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	912	944	1,061	996	888	992	1,572	1,020	0	0	0	0	
Employee numbers	7	8	8	8	8	8	8	8	0	0	0	0	
Injuries	0	0	0	0	0	0	0	0	0	0	0	0	
Days lost	0	0	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	0	0	
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	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	0	0	
LABORATORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hours worked	1,198	1,102	1,183	993	1,001	1,055	1,558	1,138	0	0	0	0 .	January = Bruised knee after fall
Employee numbers	7	7	7	7	7	7	7	7	0	0	0	0 .	January = Strained back
Injuries	2	0	0	0	0	0	0	0	0	0	0	0	
Days lost	0	0	0	0	0	0	0	0	0	0	0	0	
Incidence rate (number of incidents per 100 workers)	28.57	0	0	0	0	0	0	0	0	0	0	0	
Frequency rate (incidents per 1,000,000 hours exposure)	1,669	0	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	0	0	

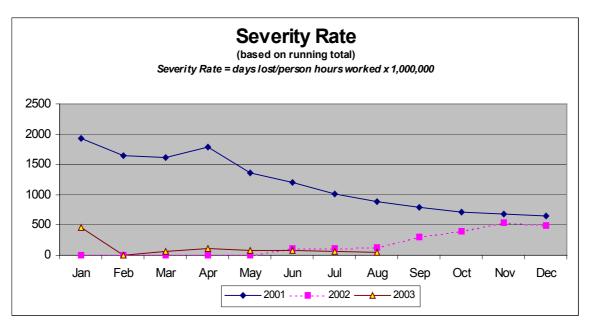
STRATEGY AND ASSET	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Hours worked	518	602	709	632	584	596	854	674	0	0	0	0
Employee numbers	5	5	5	5	5	5	5	5	0	0	0	0
Injuries	0	0	0	0	0	0	0	0	0	0	0	0
Days lost	0	0	0	0	0	0	0	0	0	0	0	0
Incidence rate (number of incidents per 100 workers)	0	0	0	0	0	0	0	0	0	0	0	0
Frequency rate (incidents per 1,000,000 hours exposure)	0	0	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	0	0
FORESTRY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
FORESTRY Hours worked	Jan 409	Feb 455	Mar 394	Apr 644	May 581	Jun 648	Jul 870	Aug 577	Sep 0	Oct 0	Nov 0	Dec 0
					,			•		Oct 0	Nov 0 0	Dec 0 0
Hours worked				644	,			•	0	Oct 0 0 0	Nov 0 0 0	Dec 0 0 0
Hours worked Employee numbers				644 3	,		870 3	•	0	0	0	0
Hours worked Employee numbers Injuries				644 3 0	,		870 3 0	•	0 0 0	0 0 0	0	0
Hours worked Employee numbers Injuries Days lost				644 3 0 0	,		870 3 0 0	•	0 0 0	0 0 0	0	0 0 0

Utility Services Division Combined	Jan	Feb	Running Total from	Mar	Running Total from	Apr		May	Running Total from	Jun	Running Total from	Jul	Running Total from	Aug	Running Total from	Sep	Running Total from	Oct	Running Total from	Nov	Running Total from	Dec	Running 12 month
			1/1/02		1/1/02		1/1/02		1/1/02		1/1/02		1/1/02		1/1/02		1/1/02		1/1/02		1/1/02		Total
Hours worked	8,449	8,135	16,584	8,774	25,358	8,072	33,430	7,334	40,763	8,216	48,979	12,518	61,497	8,041	70,438								
Employee numbers	58	59	63	59	63	58	63	58	62	59	62	61	65	61	65								
Injuries	3	0	3	2	5	2	7	1	8		8	0	8	1	9								
Days lost	0	0	0	2	2	2	4	0	4		4	0	4	0	4								
Incidence rate (number of	5	0	2.4	3.4	2.6	3	2.8	2	2.6		2.6	0	1.8	2	2.0								
incidents per 100 workers)																							
Frequency rate (incidents	355	0	181	228	197	248	209	136	196		163	0	130	112	128								
per 1,000,000 hours																							
exposure)																							
Severity rate (days lost to	0	0	0	171	59	248	105	0	86		71	0	57	0	50								
injury per 1,000,000 hours	-																						
worked)																							

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







## **Strategy and Asset Group**

## Strategy and Asset Group Review of Operations for the Period Ended 31 August 2003

## 1. Items of Note

- The base winter demand for the year has been analysed, as included in section 2.
- Certificates of Title for land at the Karori Reservoir site have been issued in the name of the Wellington Regional Council and these are in the process of being transferred to Wellington City via the Karori Sanctuary Trust.
- A number of pieces of legislation are requiring some input at present. Greater Wellington Regional Council has approved in principle the Wellington Regional Council Water Board Functions Bill and the next stage is to advertise this publicly as part of the statutory process.

A new Building Bill has been introduced to Parliament and one of the sections relates to regional councils being required to carry out various statutory processes regarding dams. The Strategy and Asset Group is contributing to the Council's submission on the Bill.

There is a requirement under the *Local Government Amendment Act* 2002 for local authorities to prepare assessments of water services (and some other services that do not affect the Greater Wellington Regional Council). The water service assessment will be an input into the assessment process by our four city customers. We will be consulting with them about the best way to undertake the process that must be completed within the next two years.

The Strategy and Asset Manager was one of three Greater Wellington Water staff who attended the New Zealand Water and Waste Association annual conference this year.

Strategy and Asset Group staff have been assisting Masterton District Council with its water quality problem.

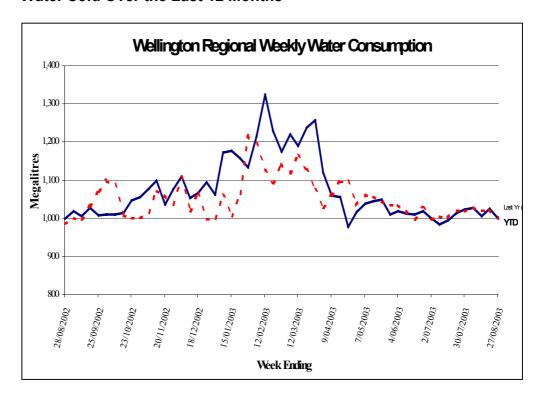
## 2. Sales Volume

Graphs outlining sales volumes are on page 14.

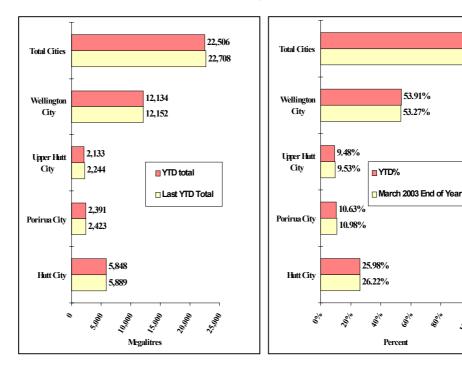
100.00%

100.00%

## Water Sold Over the Last 12 Months



## Water Sold from 1 April 2003 to 27 August 2003



Each year the consumption over the late autumn and winter period has been reviewed to obtain an indication of baseline consumption trends. A number of factors influence consumption over the period, so it is not possible to draw explicit conclusions.

The table below provides a comparison over the last three years. All the readings are for a period of 18 weeks, ending with the last weekly reading in August.

City Council	ML May-August 2000	ML May-August 2001	ML May-August 2002	ML May-August 2003	ML Change Over 3 Years	% Change Over 3 Years
Hutt	4,584	4,686	4,796	4,769	185	4.0
Porirua	1,835	1,874	1,958	1,936	101	5.5
Upper Hutt	1,773	2,002	1,805	1,718	-55	-3.0
Wellington	9,603	9,623	9,870	9,869	266	2.8
Total	17,795	18,190	18,429	18,292	497	2.8

Last year it was reported that, excluding Upper Hutt City, the annual increase in water sales during the winter period was between 1.5 and 2.0 percent. This year, on the same basis, there is a decrease of 0.3 percent, suggesting the increase last year was probably an aberration. Therefore, the overall trend is about 1 percent growth in demand. It is pleasing to note that Upper Hutt City's extensive leak detection work is still paying dividends.

## 3. **Asset Management**

- The Capital Works budget for 2003/4 is \$5.111 million. Major projects are:
  - Kaitoke weir improvements \$200,000
  - Stage 2 of the Wainuiomata Catchment northern boundary fence \$100,000
  - Modification to the Orongorongo intake \$55,000
  - Replacement of equipment at the Te Marua Water Treatment Plant \$500,000
  - Replacement of control equipment at Wainuiomata Water Treatment Plant \$100,000
  - Relocation of the Pukerua Bay branch on the Paremata Bridge \$400,000
  - Replacement of the OK main between the Wainuiomata Tunnel and the water treatment plant \$1,250,000
  - Relocation of the Karori Pumping Station \$600,000
  - Construction of a new pumping station to house the Point Howard pumps \$417,000
- Construction work on the development of the area of land above Porirua
  City known as the Aotea Block, which will have a significant impact on
  the branch main supplying the Porirua Reservoir is progressing.
  Relocation of a section of this main is being undertaken at the
  Contractor's expense under Greater Wellington Water supervision.
- Relocation of some Greater Wellington Water drainage works adjacent

to the Stuart Macaskill Lakes to accommodate the upgrading of State Highway 2 near Te Marua is complete. This work is at Transit New Zealand's cost.

## 4. Quality Assurance

- Discussions have been initiated with the Public Health Service regarding the grading of water treated at Waterloo and Gear Island, and pumped to Wellington. Unlike the water supplied to the Hutt Valley from Waterloo, this water is chlorinated.
- An upgrade in the grading from the present B to A should be easily achievable but will require the assembly of compliance data over the next year.
- Work has begun on drafting Public Health Risk Management Plans required by the Ministry of Health. It is expected that new health legislation, to come into force in mid-2004, will make the provision and implementation of such plans mandatory. Good risk management procedures are already in place, so that significant changes to the way the plants and system are operated are not expected.

## 5. **Environmental**

- Construction of a wheel and under vehicle wash at the entrance to the Wainuiomata/ Orongorongo Catchment is complete. The purpose of the wash is to reduce the risk of infestation of these catchments by exotic weeds.
- Investigation work will begin shortly aimed at ensuring the long-term safety of the decommissioned Lower Dam at Wainuiomata. At the same time the possibility of creating a wetland immediately upstream of the dam will be studied.

## 6. Catchment Management

- Clearance to return to treating river water after the 1080 drop in the Hutt Catchment was received from the Medical Officer of Health on 28 August 2003.
- Five incidents of trespass and one instance of an abandoned stolen vehicle were reported by the Wainuiomata/Orongorongo Ranger.
- Further clearing of the route for the boundary fence was completed in August/September.
- Prohunt shot 12 goats, 4 pigs and 1 deer during a controlled shootout.
- All "Judas" goats were checked and all are still "wired for sound".

- Advertisements were prepared for the "new financial year" walking tours in the Wainuiomata/Orongorongo Catchment.
- With pending legislation likely to impact on the management of water catchments, it has been decided to withhold the proposed review of the water catchment plan until the content of the legislation is known. This will allow the review to address any alterations to present practices that the legislation may require.

## 7. **Marketing**

- Development of content for a formal contract covering Greater Wellington Regional Council's supply of water to the four territorial authority customers was progressed. The original draft contract provided by the customers for discussion needs considerable work, notably in the key areas of water supply volumes and quality. This work is continuing.
- A paper was written for the Divisional Manager, Utility Services summarising the attitude and behaviour changes associated with Utility Services' summer water conservation campaigns since October 1997. Attitude and behaviour change is indicated by various pieces of market research over that period. The paper concluded that, with water conservation a likely candidate for the first Council run social marketing campaign in February 2004, it would be sensible not to develop a new water conservation campaign within Utility Services for summer 2004.
- Utility Services was represented on the social marketing project's staff reference group, which is working with Corporate Communications to develop this Council programme.
- Utility Services was also represented on the staff reference group for the Council's web site development project, involving a complete reevaluation the site's structure and features.
- Further work was undertaken as part of the Communications Subgroup of the multi-agency Wellington Emergency Water Supply Planning Group. The Wellington Emergency Water Supply Planning Group has identified a shortage of locally stored water after a major earthquake, as reported to the inaugural Civil Defence and Emergency Management Group meeting in May 2003. During August the communications group continued working to develop a regional communications plan, to address that shortage of stored water, and started planning for Hazard Awareness Week in October.
- An initial meeting was held with staff of Landcare Division's Parks Department, to discuss Parks' upgrade of interpretation signs at Kaitoke Regional Park. Each regional park is to be promoted with a unique theme and water has been chosen as the theme for Kaitoke. New signs will reflect strongly the role of Kaitoke in regional water supply.

- A brief presentation on what social marketing is, and the aim of the Council's planned social marketing campaign, was given to all Utility Services Division staff as part of the division's workshop on 29 August.
- A media release Greater Wellington's Water Supply Safe was issued, to reassure the metropolitan area's population after an outbreak of *Cryptosporidium* was detected in Masterton's water supply.
- Further progress was made on the annual Report of Business Activity for Greater Wellington Water, for the 2002/3 financial year.
- There was one treatment plant visit during August, with a further four bookings made for September.

## 8. Projects Undertaken by Engineering Consultancy for Strategy and Asset

• Big Huia Pipeline River Crossing

An assessment is being made of the extent of work required to strengthen the Big Huia pipeline river crossing to meet current earthquake loading standards.

• Wainuiomata/Orongorongo Catchment Fence

The Contract for erection of the first stage of a deer fence along the northern boundary of the water collection area is almost complete. This fence will prevent the reinfestation of deer, pigs and goats from the adjacent farmland. The fence line is being cut for the second stage and the access track upgraded.

• Wainuiomata Water Treatment Plant Outlet Control Valve

Replacement and relocation of this control valve is being investigated.

• Waterloo Well Pump Control Valves

Replacement of the Waterloo well pump control valves is being investigated.

• Garaging for Waterloo Wellfield Generators

The construction of an extension to the treatment plant to house the mobile generators is complete. Power, lights and fire alarms are being installed.

• Refurbishment of the OK Main, Petone

Negotiations are continuing with the Contractor to finalise the cost of the work.

## • State Highway 1 Bridge at Paremata

A pipeline has been designed for erection on the new bridge being constructed at Paremata. The pipe and sliding couplings have been ordered. Drawings of the installation have been provided to Beca Carter Hollings and Ferner Ltd (bridge design engineer for Transit New Zealand).

#### • Rerouting Te Marua to Karori Pipeline at Haywards

The existing pipeline route from State Highway 2 to the Haywards Pumping Station is susceptible to earthquake induced landslide damage. Alternative routes for this pipeline are being assessed.

#### • Aotea Block Development

Approximately 85 percent of the new pipeline, deviating the Porirua Low Level Reservoir branch pipeline, has been installed. The developer is preparing to install the remaining length.

#### • Hutt Park Deviation

The deviation of the Randwick to Rahui pipeline to accommodate the construction of a new access road into Hutt Park is complete. The supply of unfluoridated and unchlorinated water to Petone was reinstated on 3 September 2003.

#### • Orongorongo Pipeline Replacement

The Orongorongo pipeline from the tunnel to the Wainuiomata Treatment Plant is due for replacement. An order has been placed for the supply of 1,632 m of 650 mm diameter steel concrete lined pipe. Contract Documents are being prepared for installation of this pipe.

### • Karori Pumping Station

Options for the relocation of this pumping station to a more secure site have been evaluated. A project brief is being prepared to commission a consultant to obtain the resource consents and design a new pumping station sited on the edge of Appleton Park.

#### • Point Howard Pumping Station

Relocating the Point Howard pumps from the underground pumping station at Hutt Park is proposed.

Land purchase negotiations are proceeding for the proposed site alongside Seaview Road. A Specification is being prepared for the supply of the pumpsets.

## • Pinehaven Pumping Station

The pumpsets at Pinehaven Pumping Station have reached the end of their economic life.

One of the pumps no longer meets the duty requirement for the site.

An options report is being prepared assessing the alternative pump arrangements.

## • Minor Seismic Projects

A number of minor seismic protection projects are being attended to. These include:

- Assessment of the performance of the Mangaroa and Black Creek Bridges.
- The non-return function of inlet control valves on service reservoirs is being checked.
- Minor upgrade work is being arranged for a number of exposed pipeline stream crossings.

## **Engineering Consultancy Group**

# **Engineering Consultancy Group Review of Operations for the Period Ended 31 August 2003**

## 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 under way are detailed in the following sections.

## 3.2 Wakefield Street, Stage 2 and Webb Street

Wellington City Council cancelled the Wakefield Street component of this project, as it would cause too much disruption in the city centre. A Contract has been awarded for the Webb Street part and work is about to commence.

## 3.3 Aramoana Reservoir, Miramar

There is a storage deficit of 10 ML in the Low Level Zone of Wellington City. Of this storage, approximately 6.5 ML is required in the Eastern Suburbs (Miramar) and 3.5 ML in the Southern Suburbs (Island Bay). Tenders for the reservoir construction have been received and are being assessed by the Consultant and Wellington City Council.

#### 3.4 Southern Suburbs Reservoir

This 3.5 ML reservoir will be sited in Mount Albert Park within the Berhampore Golf Course.

The public consultation phase is well under way after meeting the requirements of Wellington City Council Parks and Gardens Business Unit.

#### 3.5 **Onslow Reservoir**

There are two reservoirs on the Onslow site.

The rectangular western reservoir has been demolished and a new larger

reservoir is being built on the same site. The floor construction is complete and the pipework has been installed. Wall construction is well under way. Until the new reservoir is commissioned, the whole zone is being supplied from the very small circular reservoir. This has required close co-operation between Greater Wellington Water operational staff and the Wellington City Council system controllers.

## 3.6 Warwick Street Pumping Station

This pumping station includes pumpsets for both Wellington City Council and Greater Wellington Water, supplied by a common electrical and controls panel. The Engineering Consultancy Group has been commissioned by Wellington City Council to arrange for the replacement of the two Wellington City Council pumps that deliver to Wadestown Reservoir and the installation of a combined electrical control panel.

The electrical control panel has been supplied to the site and connected to the four pumpsets and commissioned. The Contract for the installation of the new pumps is under way, with pipework fabrication complete. However, the manufacturer has further delayed supply of the two Wellington City Council pumps and they are not expected until late November.

## 4. Miscellaneous Projects

## **Emergency Water Supply**

The project team includes water supply and emergency management staff of the five councils, and representatives of the health sector. The *Mitigation and Preparedness - Strategy and Action Plan* is now in its final form. A separate report to the Committee includes the plan.

Progress is being made on the preparation of a joint communications strategy and the preparation of a fact sheet.

## **Laboratory Services**

# Laboratory Services Department Review of Operations for the Period Ended 31 August 2003

## 1. Items of Note

- Our previous service level agreement with the Resource Investigations Section covering the Ambient Freshwater Quality Monitoring Programme was rolled over once again into August. We are informed that this will be the final occasion for this month by month arrangement. The Environment Division is determined to get their Rivers State of the Environment Monitoring sorted and the programme under way in September.
- We have continued our involvement in the July Kaitoke water catchment 1080 pest control operation. We have been monitoring the river at the Kaitoke weir for possible 1080, *Giardia*, *Cryptosporidium E. coli*, of which we have found no evidence to date. The monitoring programme continues into September and November.
- The Utility Services Division workshop offered us a golden opportunity to demonstrate the advantages of the new Olympus microscope we have had on loan from the supplier. Shortcomings in our traditional procedure leave us not much choice but to embrace "inverted" microscopy if we wish to remain in the business of identifying and counting algae in our raw water supply. We regularly monitor the Stuart Macaskill Lakes and river intakes and trust we impressed those that we needed to with the display.
- We had no hesitation in offering our services and expertise to the Masterton District Council in its hour of need in the wake of the *Cryptosporidium* incident. Although not the major presence in the testing arena, we were able to assist with personnel, sampling equipment and consumables, and did carry out some *Cryptosporidium* analyses for Masterton District Council.

## 2. **Business Summary**

## 2.1 **Quality**

There were no requests for retesting samples and test reports were timely. Generally good results were reported with the interlaboratory proficiency testing programme.

## 2.2 Health and Safety

There were no accidents or incidents to report for the period.

## **Plantation Forestry**

## Plantation Forestry Department Review of Operations for the Period Ended 31 August 2003

## 1. Log Harvest Contract

The dollar has continued to hover in the high 50s, giving no relief whatsoever to the depressed export log prices and maintaining pressure on the markets for moulding in the United States.

The actions and reactions of the domestic mills suggest that they have no idea of where the market is heading. One week growers will be told that there is no market for pruned logs as all the mills are cutting sawlog only to find buyers searching out pruned logs the following week. Towards the end of July all local mills were at capacity and unable to take more logs - within a fortnight the rains came and the growers still harvesting could not meet demand. At present there is still strong demand for sawlog.

As yet none of the latent demand has translated into price increases but the September renegotiation round may prove interesting.

Despite the mixed messages, the small operating area where we commenced to harvest pruned logs in Hukinga has been extended by a further 8 ha after the purchaser agreed to fix the price for the block, rather than for a time period. This operation is producing returns unachievable in other markets.

Production for the August period was as follows.

Output by grade at Reservoir Ridge was:

Grade	Tonnes	%
Pruned Domestic	0	0
Pruned Export	0	0
Partial Pruned	0	0
S/A Grade	884.7	26.10
L Grade	103.84	3.06
R Grade	526.11	15.52
K Sawlog	507.10	14.96
Roundwood	17.81	0.53
K Rough	652.80	19.26
Pulp	621.21	18.33
O/S Pulp	75.90	2.24
Total	3,389.47	

Total revenue \$56,882 at an average of \$16.78 per tonne.

Output by grade at Hukinga was:

Grade	Tonnes	%
Pruned Domestic	192.09	14.70
Pruned Export	0	0
Partial Pruned	46.69	3.57
S/D Grade	307.35	23.52
U Grade	268.15	20.52
F Grade	199.16	15.24
KI Export	16.34	1.256
Export Pulp	276.78	21.20
O/S Pulp	0	0
Total	1,306.56	

Total revenue \$43,568 at an average of \$33.35 per tonne.

Combined revenue 4,696 tonnes for \$100,450 at an average of \$21.39.

## 2. Silviculture Contracts

Thus far we have planted 176,400 seedling trees in the current planting season. This equates to 117.6 ha.

To date 20 ha of the current silviculture programme have been completed. The total programme is 175.8 ha

## 3. Plantation Forestry Operations

Although the weather has taken a turn for the worst - the rain has arrived - it has not impacted greatly on the estate. We have programmed some weed spraying as soon as the weather breaks but otherwise staff have been mainly occupied supervising the harvesting contracts and the associated earthworks.

The fence repairs at Puketiro continue slowly and we are endeavouring to "entice" the neighbour's cattle (10-15 and calves) to return home before we finalise the repairs. Two attempts to encourage them in that direction have failed and it now appears that they may have "gone bush" as they have not been seen for a couple of weeks.

We are still getting examples of petty vandalism. There have been three incidents of contractor's equipment being interfered with. On two of these the offenders attempted to start bulldozers and on the other remove the batteries from equipment. The signpost at the Pram track ford has been cut down by axe.

## 4. Forest Access

There is still no acceptable access to Maungakotukutuku Forest.

The slips in Pakuratahi West have been removed. Fines have been laid over the route to Hukinga and to date have proved satisfactory in all but the wettest weather. It has been necessary to lay pulp logs on the inside of a number of corners on this route to discourage the truck drivers from cutting corners. The Puketiro roads remain passable, other than the three areas of slumping. The contractor who carried out the work has agreed to repair two of the three areas so the route can be used for this summer's logging. The third area is no longer required.

## 5. **Market Trends**

The market remains confused with local demand fluctuating between pruned logs and sawlog. Since the rain we have had difficulty meeting demand for both grades. It must be said that we are only supplying pruned logs to JNL as the price offered by other mills is unacceptable.

The export markets remain relatively depressed - we are advised that prices at destination are increasing but this benefit still gets eroded by both shipping costs and foreign exchange variations. There seems to be excessive demand for general shipping space, which is fuelling the increasing prices. It is suggested that it is to supply Iraq but I would of thought that if the United States' market was as depressed as we are told there would be plenty of ships for all.

The only sure thing is as soon as a trend develops the market will head off in a tangent. The market signs do not appear to support the "doom and gloom" promoted through the media.