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# Water Supply, Parks and Forests

## April/May 2008

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## Parks

### Review of operations for the period ended 31 May 2008

#### 1. **Manager's comments**

During May some of my senior staff and I attended the biannual Parks Forum Conference. The conference is convened by the Parks Forum, which represents agencies that have the management and stewardship responsibility for the full range of parks across the parks spectrum, from smaller urban parklands and forests, through to larger wilderness areas.

The conference was entitled *A World without Parks?* The key theme of the conference was to consider the role that parks have in terms of the environment, health, economy, society and culture, and to consider how the industry can best cater for them while society continues to change.

Some of the information obtained at the conference will be used when the Council reviews the Parks Network Plan next year. However, there were some key points that came out of the conference that I would like to share with you now.

There is a general perception within the parks industry that society in general does not understand the role that parks play in the quality of a society, especially in terms of physical and mental health, economic and social benefits. A major challenge for all park managers is to find new and innovative ways to do that.

The parks industry has spent a large part of the last few years investing in research. Parks Victoria has been partnering with Deakin University's School of Health and Public Development in Melbourne to research the affect contact with nature has on people's health and well-being. That research is now fairly comprehensive and is showing a statistically significant improvement in people's health if they use parks. However, linking that research with quantitative studies proving what amount of investment in parks produces what amount of benefit still remains difficult to prove. Without that evidence, obtaining funding (whether it is from government agencies or private investors) will always be a struggle, as it is difficult to prove a return on investment. That will be a challenge for the industry over the next few years.

Investment in preventive action in New Zealand trails that in Australia by a number of years. In Australia park agencies are forging alliances, particularly with public health and environmental agencies, to jointly promote societal well-being through parks. Those alliances are now starting to bear fruit, with funding being forthcoming from government agencies for public health prevention programmes using or based around parks.

As our world is changing so too is the manner in which we view and manage our parks. A range of models of parks management have been emerging in recent times, with the benefits of parks being delivered to the community through alternative, non-traditional models. This can include partnerships with indigenous peoples, private investors (e.g., people and foundations), non-

Government agencies and other parks, or where the focus of the management of the park differs from what would be traditionally provided by central or local government agencies, i.e., restricted targeted access.

## **2. Environmental planning and implementation**

### **2.1 Policy and planning**

The draft concessions guidelines are being presented to this Committee meeting. It is anticipated that the draft will be released for public comment in early July.

A paper that establishes the Hearings Committee for the concessions policy and the Bylaws Review is also being put to this Committee meeting.

The submissions for the Kapiti Pony Club lease in Queen Elizabeth Park closed on 1 May. Nine submissions were received and two submitters wish to be heard. The public consultation period for the reserve classification of Waitangirua Farm closed on 25 April and 10 submissions were received, with two submitters requesting to be heard.

It is proposed that the Hearings for both the Kapiti Pony Club lease and the reserving of Waitangirua Farm will be held at the beginning of the next Parks, Forests and Utilities Committee meeting (on 31 July). Copies of the submissions for both issues will be sent to all Councillors prior to this meeting. Summaries of the submissions and reports containing officer's recommendations will be provided at the Committee meeting (again for both issues).

On the day of the Committee meeting the process will involve firstly hearing the submitters for the Waitangirua Farm reserving and considering the written submissions. The Committee can then debate the options that have been presented and approve/amend/reject the recommendations. This process will then be followed for the Kapiti Pony Club lease proposal.

### **2.2 Monitoring**

Rodent monitoring has been completed in the Battle Hill bush remnant and East Harbour Regional Park. In Battle Hill there was good news in terms of rats (0 percent) but mice levels were high (65 percent). Unfortunately, rat numbers have climbed in the East Harbour Regional Park, including in the mainland island area. In May the numbers inside the mainland island were at 22 percent, quite an increase from the level of 6 percent recorded in February. Outside the mainland island area, where rats are not controlled, the level was 42 percent (up from 30 percent). While there are some concerns about this increase in rat numbers, staff members are noting that there is a trend of increasing rat numbers at this time of year. It appears that they have plenty of food to eat (in the form of hinau and other fruit), and they are not eating the bait.

### **2.3 Pest control**

The major possum control operation in Dry Creek in Belmont Regional Park

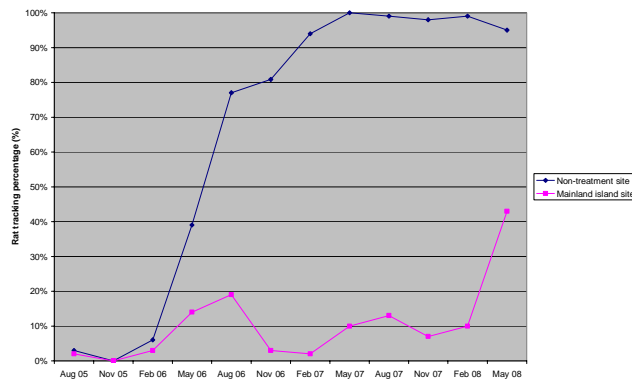
has been recently monitored. The first half of the block was completed last year and the second half completed in May this year. The possum residual trap catch was 2.7 percent, down from 13.3 percent in 2006. Dry Creek will now go into a possum control maintenance regime to keep possums at low levels.

Weed control contracts in Wainuiomata Recreation Area and Korokoro Dam have been successfully completed. The Wainuiomata Contract was for the control of tradescantia only, which was spread almost throughout the 20 hectare control area in varying densities. A reasonable result was achieved by the Contractor but follow-up work will be needed next year in the areas of greatest density. The Korokoro Dam Contract was for the control of a suit of weed species in the vicinity of the dam. A great result has been achieved by the Contractor there, with the area now looking quite different, particularly where large infestations of ivy, tradescantia and montbretia have been removed.

A new survey of weeds in Speedys Reserve in Belmont Regional Park has been started by our weed team. With the previous survey having been carried out six years ago, it is now time to make a new inventory of weeds that are still present in the block. This reassessment will help determine our new priorities.

## 2.4 Wainuiomata Mainland Island

The same rat plague that was noticed in East Harbour Mainland Island is causing concern in the Wainuiomata Mainland Island. There has been a sharp increase in rat numbers inside the Mainland Island, while the numbers remain very high outside. A bait fill was completed in early May but there was no indication that more bait was being taken. A change to a more preferred bait type may be an option. Different bait types and a new bait formulation are being pursued.



Rat tracking rates inside and outside the Wainuiomata Mainland Island

## 3. Western sector

### 3.1 Events

At our western parks there were several events held, including the Capital Coast Adventure, which is a non-competitive motorcycle ride through a number of different parks, including Belmont, Battle Hill and the Akatarawa Forest.

A total of 185 riders from throughout New Zealand enjoyed the ride and scenery offered through the Greater Wellington Region.

At Battle Hill we hosted a Fijian co-educational school from Suva. The 16 year olds have had very little to do with farm life, so showed lots of interest in what was going on down on at a typical New Zealand farm. Ranging staff members also showed around a group of special needs students aged 6-16 from Wellington, who ignored the rain and enjoyed learning how to draft and drench some sheep.

At Queen Elizabeth Park over 600 plants have been put in the ground along the Wainui Stream with the help of local Paekakariki schools. The Victoria University Harriers held their annual running event, with over 300 runners competing.

### **3.2 Ranging**

On the Hutt River Trail the ranging service that we provide to Catchment Management continues to monitor public activity along the busy Hutt River corridor. The Ranger has been busy working with community groups and schools over the period, as well as giving presentations about the Hutt River Trail.

### **3.3 Park and asset maintenance**

With winter officially with us, there is the usual seasonal decline in visitation, so we have been working to complete some maintenance tasks before the worst of the winter weather sets in. This includes track work on the walking track that links Stratton Street to the Korokoro Dam in Belmont Regional Park. Steps only fit for giants have been replaced with a better graded and metalled track surface.

Battle Hill work includes completing fencing around the wetland area, allowing the progression of the Swampy Gully Wetland Plan and future planting opportunities.

Staff also worked hard to prepare sites at Battle Hill and Queen Elizabeth Park for Arbor Day plantings in early June.

Staff members have been busy organising contractors, metalling car park areas, removing pampas and replacing vandalised signs over the period.

At Whitireia Park we have worked with the Department of Conservation and the Whitireia Park Board to control gorse in grazed areas, along with regular monitoring and filling of bait stations to prevent possum reinfestation of the park. Some pothole and road surface repairs have also been carried out.

## **4. Eastern sector**

### **4.1 Events**

Several army training exercises have been carried out during this period in Valley View, Akatarawa Forest.

In the Wainuiomata/Orongorongo Water Collection Area two Wainuiomata Catchment tours were held during May, with both fully booked. The final tour for this season is scheduled for 15 June.

Both the Wainuiomata/Orongorongo deer hunting ballots have now concluded successfully. Four deer, one pig and one goat were shot in Wainuiomata, with six other deer shot at. One deer was shot and more sighted in East Harbour Regional Park. Feedback from hunters was generally good, with many comments in Wainuiomata on increased bird life.

At East Harbour Regional Park around 200 cyclists took part in the annual Pencarrow bike ride organised by Hutt City Council and using the Kohangatera Track. Work has once again commenced on the MIRO/Forest and Bird led planting project at the Pencarrow Lakes block. Over 500 plants from the group's community nursery at Eastbourne were taken to selected sites as part of a long-term revegetation programme. The Crazyman Event, Wellington's premier multi-sport event which uses East Harbour Regional Park's forested tracks for its gruelling 16 km run was held in early May. The race once again attracted large numbers of crazy people, a total of 410. A group of more than 80 visited the Pencarrow rescue area adjacent to the park as part of the ahine disaster 40<sup>th</sup> anniversary.

The planting season is now under way at Kaitoke Regional Park. The ACCOR group planted 400 seedlings at Te Marua and 210 students from Plateau School potted up seedlings to be planted in the park next year. Planting in the *Celebrate Life* totara grove has also recommenced.

## 4.2 Ranging

Two of the rangers hosted a visit from a Rotary Club from Brazil, which was interested in sustainable management and balancing ecological values with developmental demands.

Vandalism continues, with young trees and bollards being removed. The bollards and trees continue to be replaced. In other incidents graffiti has been removed and vehicles seen ripping up grass have been pursued by rangers and the Police called. Attempts to apprehend these individuals have been unsuccessful to date. Media articles have resulted in an attempt to get members of the public to assist in policing this issue and security camera options are being investigated.

## 4.3 Park and asset maintenance



New directional signs have been installed for the Lakes block circuit and the northern block in East Harbour Regional Park. Improved signage has been ordered for Kaitoke Campground.

A 30 m section of boardwalk was installed over a particularly wet and swampy section

The access track and adjacent gardens next to the most popular swimming hole on the Pakuratahi River was upgraded. Annual maintenance of the access road to the Hutt Water Collection Area has been completed.

In response to the demands of a busy summer, the water supply system to the campground at Kaitoke Regional Park has been upgraded.



During the recent dry period the Kohangapiripiri Lake levels dropped significantly, resulting in the exposure of part of the lake bed. This is a seasonable process and not an uncommon occurrence. However, this year the dry lake became the target of inconsiderate four wheel drive vehicle users, who caused considerable damage in the process. This is an extremely fragile environment where any disturbance can have a long-term effect. To counter this, park staff members have constructed a timber fence across the lake frontage, which should help deter such activity. The fence was constructed during the dry period.

# Marketing and Design

## Review of operations for the period ended 31 May 2008

### 1. **Manager's comments**

As we come into winter and near the end of the financial year, it is timely to review the summer campaigns - both water conservation and the Regional Outdoors Programme - to assess results and how we can improve in the future. I look forward to the results of the annual community telephone survey around the end of June to get feedback from regional residents on their perceptions of parks and this time of our water conservation campaigns.

I also attended the Parks Forum conference in late May. It was intriguing to see the widespread interest in and emphasis on marketing by leaders in the parks industry.

A presentation from Parks Canada summed it up neatly - for our communities to achieve economic, environmental and cultural sustainability we must maintain a sense of connection to our parks and protected areas. Keeping parks relevant to an increasingly urbanised and "virtual" society is a major challenge now and in the future for everyone responsible for their management and direction.

### 2. **Water Supply**

#### 2.1 **Wellington Water Management Plan Technical Report**

The Technical Report has been updated to include "final" customer comments received during March and April, and a copy of the report provided to each customer council.

#### 2.2 **Water supply strategy**

Content about the strategy was written for the GWRC web site, in conjunction with the Communications Department. A press release and letters to the various stakeholders included reference to the updated material.

#### 2.3 **Water supply agreement**

Our water supply customers supplied a latest draft of a proposed Water Supply Agreement in April (via Capacity, Wellington and Hutt City Councils' water management unit) for comment. The draft has been reviewed and proposed revisions and additions returned to Capacity for their discussion with the four water retailing councils.

Neither party anticipates any of these amendments being difficult to agree. However, we have been advised that progress is unlikely to be rapid over the coming months, as Upper Hutt City Council is engaged with transferring its day-to-day water supply operations to Capacity to have effect from 1 July.

#### 2.4 **Water restriction communication review**

Following the recent summer, when heightened water use restrictions were



introduced for the first time since 1985, we have had preliminary discussions with our customers about a formal review of the restriction notification process, with a view to streamlining communications between GWRC, the four retailing councils and Capacity. We anticipate conducting a joint review in the coming weeks.

## **2.5 Water conservation promotion**

A research consultant is assessing recall of the various strands of our water conservation advertising and communications over the spring and summer period. Research design was completed and fieldwork commenced in May. Results will be analysed during June, with the report now due at the end of the month. This research is being conducted in conjunction with research projects for two other GWRC departments, to share costs.

A proposal for water conservation advertising for the 2008/09 financial year will be drafted during June.

## **2.6 Live water graphs**

Further development work has been undertaken on the information available on the GWRC web site. In addition to the ability to view the “real-time” supply of water (via the live water map), visitors to our web site can now view the total amount supplied to each individual city, the total consumption of all four cities, as well as the individual production of our water treatment plants. The data available dates from 1 January 2003 and continues until the present.

To view the new graphs, visit [www.gw.govt.nz/waterlivemap](http://www.gw.govt.nz/waterlivemap).

We plan to issue a media release on the live water graphs during the launch of the 2008/09 summer water conservation campaign.

## **2.7 Billboards on water treatment facilities**

Staff members are investigating opportunities to gain revenue from hosting billboards on water supply buildings. The existing contract for the billboard on the Kaiwharawhara Pumping Station will be renegotiated. Other buildings that are being considered are the Waterloo Water Treatment Plant and the Haywards Pumping Station.

A Request for Proposal has been sent to each of Wellington’s three outdoor advertising companies.

## **2.8 Water Supply annual report 2007/08**

A timeline for production of the report has been drafted and requests for annually-reported data and information sent to key water supply personnel. A full content list will be prepared for management approval during June.

## **2.9 Water supply levy**

The end of year wholesale water supply levy adjustments for 2007/8 and the levy allocation between councils for 2008/9 were calculated and supplied to customer councils for comment.

A GWRC paper recommending finalised figures will be prepared for Council approval at the end of June.

## **2.10 Treatment plant visits**

Three tours were hosted during the reporting period, with some 70 visitors.

Design work has begun for a new lookout at the north end of the Stuart Macaskill Lakes, including seating for up to 40 people. This is to provide a viewpoint over the lakes and to place them in context with the surrounding geology, land use and development of the Hutt and Wellington urban centres. Our new Landscape Architect has been hunting out redundant pieces of water supply equipment to “decorate” the area and create a child friendly space for the visiting school children.

## **2.11 Educational resources**

Significant changes to the primary school curriculum in recent years means we need to largely update the *Waterworks* educational resource booklets developed in 2004. Aimed at primary school teachers, the booklets discuss the collection, treatment and delivery of wholesale water and GWRC’s role in this. They will add value to a visit to a water treatment plant by tying in links to the school curriculum with suggested learning activities for both before and after the visit to the water treatment plant.

## **3. Parks**

### **3.1 Brochures**

The Pakuratahi Forest brochure is the latest to require updating and reprinting because of depleted stocks.

We have had some very positive feedback regarding the *Accessible Places in Regional Parks* leaflet and intend to produce that as a full brochure in DL format. We will be talking to our contacts in the health sector about any content they would like to see included.

### **3.2 Buggy walks**

The May event starting at Hikoikoi Reserve attracted 26 parents after a very wet start to the morning.

### **3.3 Arbor Day**

Planning is under way, with events to be held at Queen Elizabeth Park on 4 June and Battle Hill on 6 June. All the material will include reference to and promote World Environment Week. We are also introducing more sustainable practices such as separate bins for compost, cardboard and general rubbish.

### **3.4 Planting days**

Various parks’ planting days have now been defined and are listed on the GWRC events calendar.

We helped with the co-ordination of a successful planting day at the Wairio

wetlands in the South Wairarapa. This involved GWRC staff members from Wellington and Masterton offices, along with Ducks Unlimited, Rotary and pupils, teachers and parents from Kahutara and Pirinoa Schools.

### **3.5 Restoration Day**

A very successful Restoration Day was held on 3 May at Victoria University. It was attended by 170 volunteers from the various environmental restoration groups around the Region. We have since had a debrief with our partners at the Department of Conservation and have confirmed that in 2009 GWRC will take the lead organisational role. We are tentatively looking at holding it at a venue in the Porirua Basin.

## **4. Community liaison**

### **4.1 Belmont Regional Park**

Staff members have met with the convenor of the Friends' group to progress the proposal to upgrade the toilets at the old shearers' quarters, so they are suitable for public use.

### **4.2 Queen Elizabeth Park**

Meetings have been held with members of a Friends' subcommittee regarding the updating of the Bush Remnant Restoration Plan. We plan to undertake this in the new financial year.

## **5. Staff**

Barry Straight has commenced work as our new Landscape Architect

## **6. Water usage**

Charts detailing water sales for the year are on page 15.

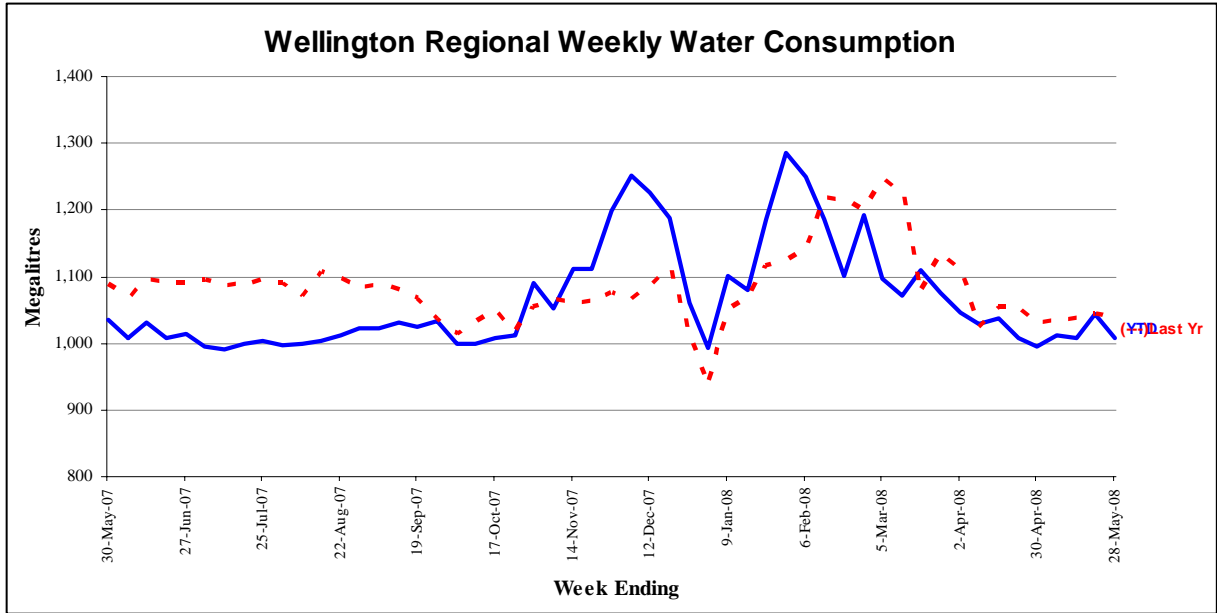


Figure 1 - Water sold over the last 12 months

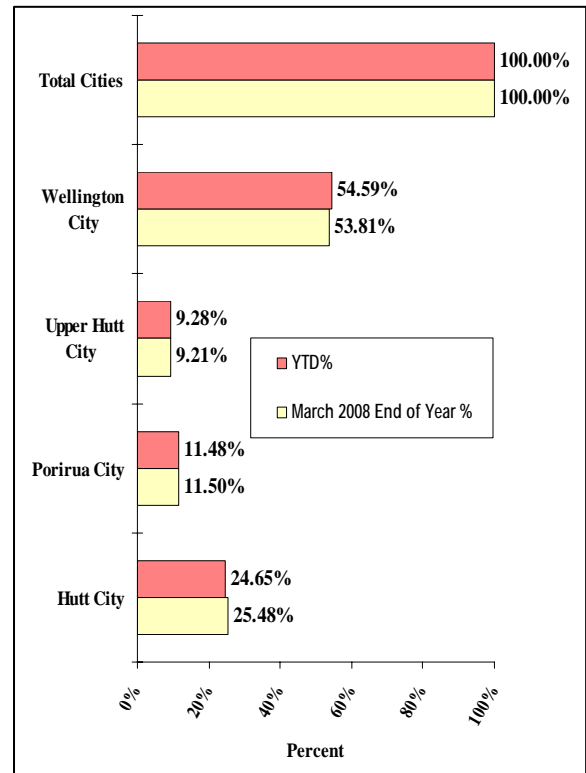
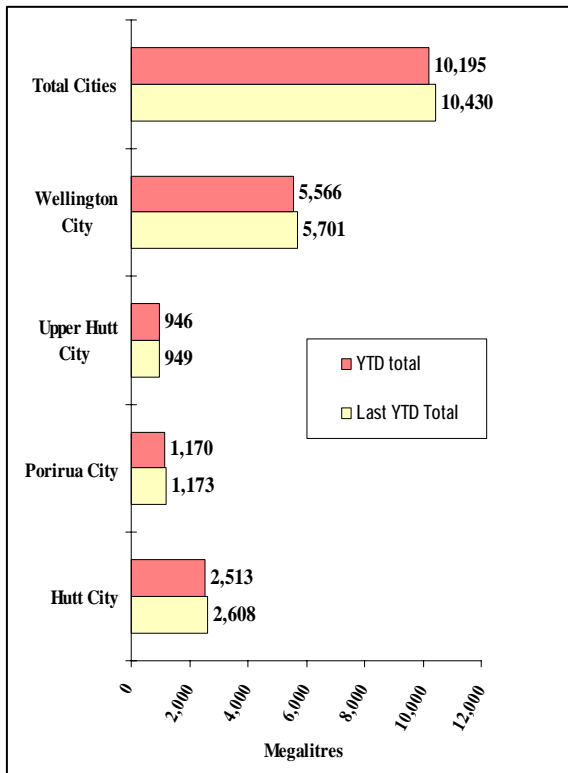


Figure 2 - Water sold during the metering year to date [April 2008 to March 2009]

## Forestry

### Review of operations for the period ended 31 May 2008

#### 1. Plantation forests

##### 1.1 Log harvest contract

There has been a reasonable two months' production without too many disruptions. Log 6 completed the harvest of the Parry's Bush block and moved to Kilometre to clear the areas suitable for ground based operations and to set up skid sites for the hauler. This crew has now worked in three different parts of the block and is likely to remain there for the balance of the winter.

Log 36 was initially based at Kilometre but towards the end of March moved to Puketiro to recommence the harvest of the Blowfly block. This block was scheduled for completion before this time but a combination of no market for the pruned and part pruned logs in the block and the element of wind-throw at Kilometre precluded an earlier move. There has been one advantage from the delay. The Kaika Mako block, which lies above and to the east of Blowfly, is a structural block and is accessed across a deep valley. The block is also relatively high and shows signs of wind damage. These factors led to a view that it would not be economically possible to build a logging truck route into the block and a decision was taken to defer any attempts to harvest.

As the harvest of Blowfly moves through the block, the removal of the trees has revealed a hauler based option is viable to recover most of the merchantable trees in the adjacent Kaika Mako block. This opportunity is being investigated further.

The domestic market has remained relatively firm, with complaints when crews have not been able to meet their weekly targets. While prices generally held, there were no increases recorded. The export remained firm but a lack of ships resulted in further port closures and some logs being diverted to the Kaiwharawhara reclaim area. Closures now also occur while logs are being fumigated.

The situation with shipping remains unchanged, with our rate in the mid-US\$50s and the spot rate in the low US\$70s.

Further shipments of logs in containers are being assembled for despatch to China.

The Wairarapa crew that was working in Valley View remained until mid-April.

Production for March was 4,793 tonnes for \$97,610 and for April for the regular crews was 5,192 tonnes for revenue of \$106,395, supplemented by the Wairarapa crew who harvested 891 tonnes for \$15,620.

##### 1.2 Silviculture contract

During March and April a total of 17.0 ha of silviculture were completed.

Tenders for the 2008/9 silviculture will be invited in mid-June.

### **1.3 Replanting**

This year's replanting commences on 16 June.

### **1.4 Plantation Forestry operations**

Thus far we have harvested a total of 55,098 tonnes against a pro rata target of 58,333 tonnes if we are to achieve a total harvest of 70,000.

The Wairarapa crew proved very effective in clearing up remnant stands that were uneconomic to allocate to full sized crews.

Although the "hill" sections of the route between Totara Park and Blowfly in Puketiro were graded, we have had some difficulties with the lack of rain. The trucks generated volumes of dust, which turns to very slippery mud when slightly wet. We rely on reasonable downfalls to clear these and to keep the road clean.

### **1.5 Forest access**

Maungakotukutuku access remains the only significant problem, with the only access requiring two crossings of the Maungakotukutuku Stream between the end of the public road and our boundary.

We have had further incidents of deliberate damage to contractor's equipment and the theft of diesel from machinery.

### **1.6 Market trends**

Current predictions are that the export market has bottomed out and regular steady increases can be expected until year end.

The container trade into China continues with some new grades being taken.

### **1.7 New equipment**



There are ongoing issues during logging with the soil compaction arising from the use of wheeled skidders to transport the trees from where they are felled to the skid.

Graham Tuckey Contracting, which undertakes the logging in the Metro Forests, has recently purchased a low ground impact KMC tracked skidder. This machine travels directly from the location of the trees to the skid, rather than following skidder tracks. This eliminates the compaction associated with tracked skidders.

## **2. Reserve Forests**

### **2.1 Tauanui logging**

There was no logging carried out during March and April, with the logging crew being deployed within Metro Forests after payment difficulties (now resolved) with our major sawlog purchaser.

The crew returned at the end of April and was targeting blocks of mainly export grade material and sawlog to Kiwi Lumber in Masterton.

### **2.2 Silviculture**

Silviculture within the second rotation at Hiwinui has continued steadily, with mainly thinning being completed during the period. This complements pruning operations already carried out and largely since the fire danger has eased.

At the end of April 62.5 hectares of pruning and 14.8 hectares of thinning had been completed.

### **2.3 Rural Fire**

At the end of March fire dangers eased to levels so the prohibited fire season could be lifted. At that point a season that had been very tense as a result of extreme fire conditions and numerous fires as a result of a variety of causes but notably power line breakages and arcing reached a point that a number of controlled burns could be carried out.

The coincidence of the lifting of the restrictions and controlled burn activities resulted in a torrid period of rural fire duty as permittees tried to catch up on delayed burns. One of these escaped, resulting in a difficult fire in felled and heaped willows on a riverbank.

The arrival and commissioning of the new Rural Fire appliance for Tora (stationed at Stoney Creek) provided a real boost to Rural Fire morale in that area.

### **2.4 Lincoln University**

A day was spent with 65 Agriculture Science and Commerce students and their lecturers on their annual North Island country farming tour. Using the Stoney Creek DVD as a starting point, the benefits of using forestry as soil conservation and erosion control tools are highlighted as part of their second year course. This provided a lead into a more general consideration of forest management, as several projects were visited during the balance of the day. The final property visited was the Pottinger property at Tinui where forest management is integrated with the farming operation as diversification, demonstrating not only wise land use over 10 percent of the property but a complementary revenue stream alongside sheep meat, wool and cattle operations.

Involvement in this study tour has been an annual event for the last eight years.

# Water Supply

## Review of operations for the period ended 31 May 2008

### 1. **Stuart Macaskill Lakes**

Lake 1 at Te Marua is still empty while the design engineers search for a suitable product to replace the failed seal material at the base of the tower. The repair work is being given a high priority, as we would like the lake refilled as soon as possible. However, the only consequence of the empty lake at the moment is that more power is used to pump from Lake 2 when the river source is off. Our storage volume has been halved, though, and this is of concern in the event of a major incident.

### 2. **Health and safety**

During the period a number of health and safety activities were performed:

- All computer workstations were assessed and a few corrective actions were recorded
- OK Health carried out hearing and lung function tests
- Hazard awareness training was undertaken
- Additional staff members were trained in the use of the SafeTsmart system, which is now approximately 70 percent complete
- Work continued on the ACC workplace safety management practices.

### 3. **Waterloo pump efficiency study**

A study designed to quantify the effects of various refurbishment/treatment options on pump efficiency was started with the removal and inspection of the Wellington No. 1 Pump. At the end of the study we will have better information with which to estimate the payback period of pump refurbishment. This will allow us to determine the extent of our pump testing/refurbishment programme.

### 4. **Gallup survey**

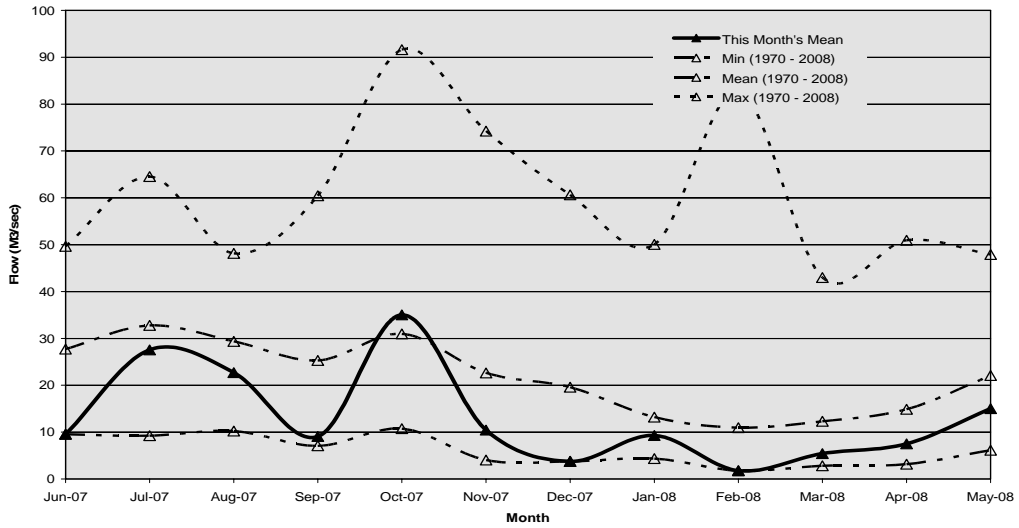
The Gallup survey results and action planning sessions dominated discussions within the department and resulted in a few common areas for improvement across the different teams. Action plans have been agreed and documented, and some actions have been implemented already.

### 5. **Supply situation**

#### 5.1 **Hutt River flows**

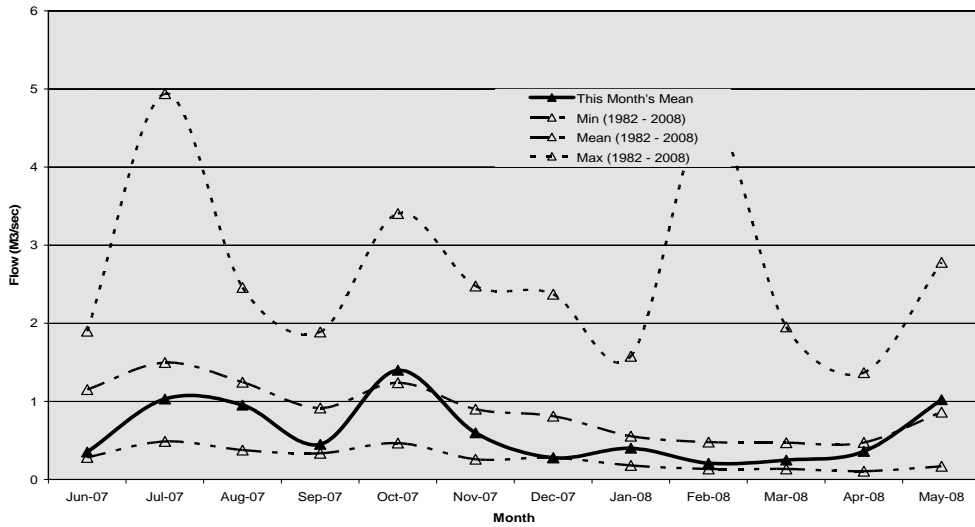
The mean flow for the Hutt River was below average during April and above the minimum during May.





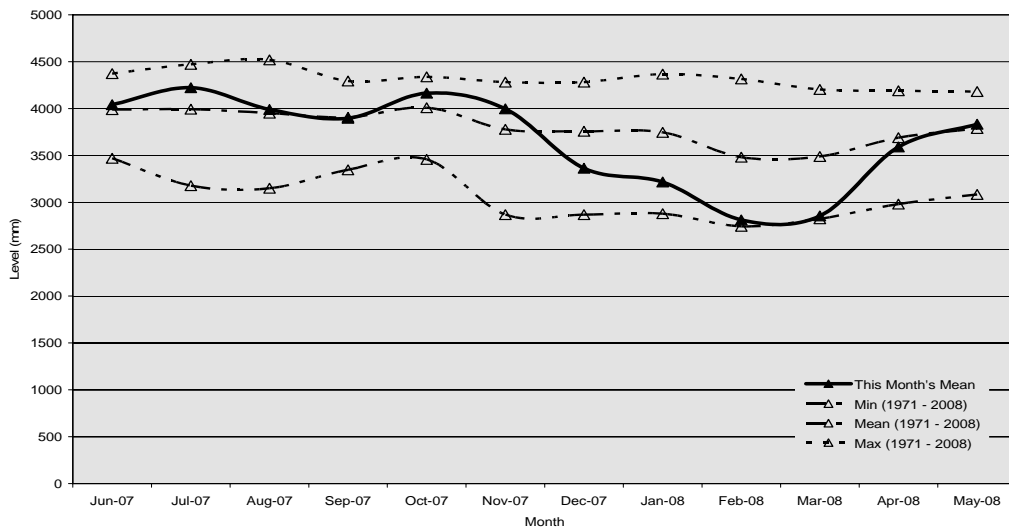
### 5.2 Wainuiomata River flows

The mean flow for the Wainuiomata River was slightly below average during April and about average during May.



### 5.3 Aquifer levels

The water level in the Waiwhetu aquifer was slightly below average during April and about average during May.



## **6. Catchment management**

- Three guided tours were held and enjoyed by a total of 90 participants.
- With the relatively mild weather, vandalism and trespass continued.
- The “Roar Hunt” took place in March/April, with 4 deer, 1 pig and 1 goat culled. A further 15 deer and 9 pigs were seen but not culled.
- Only 114 of the available 250 days were used by hunters.

# Engineering Services

## Review of operations for the period ended 31 May 2008

### 1. Water asset management

Key projects and their status are as follows:

- Inlet standpipes have been installed in water reservoirs at Pukerua Bay, Linden and Aro. The standpipes are designed to prevent water loss from the reservoir if the inlet pipe breaks – such as in a severe earthquake.
- A draft specification has been prepared for the supply of a sodium hypochlorite generating plant at Te Marua Water Treatment Plant. This will allow the production of chlorine on-site to reduce treatment cost and provide additional security of supply.
- The new Lincolnshire Reservoir was filled in May to allow the contractor to carry out a leakage test on the reservoir. The reservoir, which will supply the residential development at Grenada Village. Final commissioning is expected in July.
- Damwatch Services Ltd has been commissioned to carry out a comprehensive safety review of Stuart Macaskill Lakes, which is required every five years under the Building Act 1991.
- Following the emptying of usable water from Stuart Macaskill Lake 1 over summer, the opportunity has been taken to drain the remaining water and carry out an inspection and repair work to the inlet pipes. Inspection of the lake tower and its apron has revealed deterioration of the sealant in the tower/apron joint. The lake designers (Tonkin and Taylor Ltd) have been commissioned to determine how to replace this seal. The lake will remain empty for a few months whilst this is investigated and the repair is undertaken.

### 2. New water sources

A letter, including a copy of the Wellington Metropolitan Water Supply Development report, was sent to all customer water supply managers following approval of the report by Council. The letter provides the first stage of consultation by asking for feedback on the four short-term development options and selection of the Whakatikei site for a dam when one is required. We have offered assistance to each of our customers in presenting the information to their respective council committee. Responses are expected in July or August.

Tonkin and Taylor Ltd is nearing completion of its detailed feasibility study and preliminary design on increasing the level of the Stuart Macaskill Lakes. The report is now due mid-June. No significant issue against raising the level of the lakes has been identified so far.

A joint letter from the Chief Executives of both GWRC and WCC has been

sent to the newly appointed chief executive of Capital and Coast District Health Board. The letter again identifies the need for the proposed new Central Business District reservoir and the benefits to all parties in a jointly funded project. The letter follows a previous joint letter sent in December to the Acting Chief Executive. Meanwhile initial planning and design work for the reservoir is commencing.

Seven scientific reports on the impact of lower flows on the river habitat of the Hutt River downstream of Kaitoke weir were commissioned. Four of these reports have been revised and reviewed by the peer reviewer for a second time and there are outstanding issues with one report still to be resolved. Three further scientific reports are being finalised by the authors. All reports will be forwarded to Fish and Game New Zealand and the Department of Conservation for information when completed.

Investigation reports for the Upper Hutt aquifer are being finalised. The water treatment report has been received and comments provided on a final draft risk assessment report. A summary report is being prepared. A programme of *Cryptosporidium* testing has been initiated to confirm the water treatment requirements.

### **3. Quality assurance**

Our records indicate that compliance with the *Drinking-Water Standards for New Zealand 2005* has continued to be achieved at all four water treatment plants this financial year.

The collation of information for the grading of the Gear Island Water Treatment Plant will continue over the next few months following modification of the recording instrumentation.

Raw water *Cryptosporidium* data for the last 12 months has been compiled and will be submitted to Regional Public Health in June to confirm the performance requirement for Te Marua and Wainuiomata Water Treatment Plants for the next five years.

A draft outline of contents for a public health risk management plan has been prepared. Public health risk management plans are required to be prepared for each water treatment plant and the distribution system by 1 July 2009 to comply with the *Health (Drinking Water) Amendment Act 2007*.

### **4. Environmental**

MWH New Zealand Ltd has been commissioned to carry out a study on the feasibility of installing an electricity generator on the Orongorongo supply pipeline to the Wainuiomata Water Treatment Plant. The site visit has been completed and a draft report is due in July.

A report is being prepared on options for monitoring water quality upstream of the Waterloo wellfield, to minimise the risk of any contaminants reaching the production wells.