
Water Supply, Parks and Forests

October 2008

Parks

Review of operations for the period ended 31 October 2008

1. **Manager's comments**

The last period has been a busy one for Parks.

The Establishment Group for Wairarapa Moana held a strategy development Day in October. The purpose of the day was to develop very long-term visions and a series of short-term milestones for Wairarapa Moana. Personally I think the day went very well and confirmed to me how similar the views are between the parties to this arrangement regarding the future of the Moana. The information gathered at the strategy day now needs to be compiled and articulated into a short statement of long-term intent, then the work will begin on what needs to be done to achieve it.

With the upcoming network strategy development for the parks, the department has been doing some background work with a market research company and our own planners to ensure that Greater Wellington Regional Council (GWRC) has the best information possible to make long-term decisions. The report that accompanies this order paper on that topic is the result of that work. Unfortunately decisions about the use of park land are never easy, as they are always subject to a fair amount of debate because people take parks personally. It affects the way they enjoy their lives. Therefore, it is important that we take a very inclusive approach to the strategy's development.

Rimutaka Summit toilets and tearoom. Following Council's decision to decommission the Rimutaka Summit toilets and not to renew the tearooms' licence I notified the current licensee of the decision and formally gave notice that the licence will expire on 7 December 2008.

2. **Environmental planning and implementation**

2.1. **Policy and planning**

The Concessions Guidelines were approved by Council on 3 November.

Staff training will take place in the next month to introduce the new guidelines and the systems needed to process them. Letters will be sent to submitters to inform them of changes to the guidelines made through the submissions process and a concessions brochure will be prepared.

Both the draft Parks, Forests and Reserves Bylaw and *Battle Hill Farm Forest Park Management Plan* were approved for release at the 3 November Council meeting. Advertisements are about to be placed in *The Dominion Post* and five Wellington community papers calling for submissions on these documents. Copies of the Bylaw and the *Battle Hill Farm Forest Park Management Plan* will be placed on the web site and made available at The Regional Council Centre and Upper Hutt and Battle Hill Depots. The submission period is open until 2 March 2009.

2.2. Monitoring



Bird monitoring is continuing in the parks and forests. Counts have been completed in Kaitoke Regional Park where grey warbler, silvereve, fantail, whitehead and blackbird were the most common species recorded. Falcon and kakariki (which are rare) were also seen. In Belmont Regional Park, tui were amongst the most common birds recorded. Members of MIRO have been conducting their annual five minute bird counts in the northern forest of East Harbour Regional Park. Five of the

released robins have now been spotted, including the one shown in the photo at left (a male from the first release).

2.3. Pest control operations

Sixty-one goats were culled in a professional goat control operation in Akatarawa Forest. A further three deer were culled in the northern forest of East Harbour Regional Park. A mustelid trap grid has been recently installed in the Pencarrow Lakes block (a mustelid is a stoat, ferret or weasel). Seventy traps have been set out and they will be checked on a monthly basis. The control of these pests will aid the breeding success of wetland birds that nest on the ground around the lakes and are vulnerable to attack from mustelids.



The “weed team” has completed a weed survey in Queen Elizabeth Park and is continuing control work on climbing asparagus in East Harbour Regional Park.

Officers are working with the Department of Conservation (DoC) to set up an aerial alder control trial at Lake Wairarapa wetlands. It is proposed that two chemicals will be trialled on three areas of dense alder or alder/willow.

Officers are currently consulting with landowners and preparing to apply for a resource consent.

2.4. Wainuiomata Mainland Island

The latest rodent tracking results (completed in November) show that the tracking rate for rates is 0 percent. This is great news. A robin from the East Harbour Regional Park release has also been seen in the Wainuiomata Catchment.

Four deer were culled in the Mainland Island in a recent control operation. Seedling growth is improving as a result of lowering the number of browsers in the area.

Possum monitoring in the Mainland Island is due to start in November.

Bird counting in both the intensive control area and the non-treatment site will also take place over the next month.

3. Western sector

Ranging staff participated in the opening of Kapiti Coast District Council's Campbell Mill Road linking Whareroa Farm to the Akatarawa Forest. Access to this road has been long anticipated by many groups from walkers to mountain-bikers.

At Battle Hill rangers have been busy with pre-school and school groups. Camping has picked up, especially with the Girl Guides all turning up for their annual wilderness quality camping experience. As part of this experience, the ranger gave a talk on the park and its environment, as well as inviting them to grub thistles for an hour - nothing like hands on to get the feel for things.

The ranger at Queen Elizabeth Park has spent a great deal of time this period working with the Friends Groups on their application to the DoC's community funds for restoration. The group has applied for approximately \$75,000 to extend the Remnant Bush to approximately 12 hectares (ha) – this includes the adjacent wetland.

The Belmont Regional Park Ranger has removed all the lambing closure signs from the Waitangirua Farm entrances prior to the reopening of the farm to public access at Labour Weekend. The ranger also met with a member of the Belmont Hill Road Community Group to assess a proposed "community developed" route to enter Speedy's Reserve from Hill Road.

The Tramway Museum group has finished its new garage at Queen Elizabeth Park and has started reroofing and residing its barn structure. The new siding and roofing will be a long awaited improvement of the existing structure. It should be done in plenty of time for the summer busy season.

The Landscape Team has finished off the Paekakariki car park. They added landscape boxes to the centre of the car park to inhibit vehicles from purposely skidding on the metal. The boxes look great and have received compliments from many of the locals.

4. Eastern sector

Spring has brought its normal climatic changes with heavy rain, some flooding, fluctuating temperatures and the occasional “Bluebird” day. This, of course, leads to some frustrations in completing work programmes but we have had a productive few months. As usual, these weather events have created a large amount of work but the rangers have managed to keep on top of the work and minimised the disturbance to our users.

The cleanup of wind-thrown trees and debris continues in the Akatarawa Forest. Most of the fallen trees are pine, with a few large natives. Most of the horse tracks were closed because of this problem and we have now engaged a hydro-mower to assist in clearing some of the tracks.

The road in the Hukinga plantation forest has slumped because of the river below undercutting the bank. As this road is a vital access route for recreational users and for large-scale events such as the Karapoti Classic and Kapi-Mana motorcycle events, we are currently liaising with our Forestry Department on a 50:50 share cost exercise to carry out repairs.

A Contractor has been busy in the Orongorongo Valley clearing wind-thrown trees from the access road during October. This included a large rata which completely blocked Tunnel Road. The tree was cut up and cleared once the wind had died down enough to enable a safe work site.

Our usual issues with misuse of our parks continue to frustrate. A group of trail bikers and go-karters were spoken to and asked to leave Te Marua during October. Police were called to deal with a group using an air rifle in the Kaitoke campground. The rifle was confiscated and the group asked to leave. However, we have had some successes with some youths that threatened rangers in Tunnel Gully identified by the Police and given community service. These youths also sent the rangers concerned an apology and some chocolates.

Rangers have made huge efforts with community groups and volunteers to plant a large number of plants into many of our parks and they are looking all the better for it. Planting is now completed for the season and, though it is always a priority, greater time will be required around managing park usage and demand over the summer and enhancing the user experience. Around 450 totara and manuka were planted in the Kaitoke campground gardens and pony club lease margins during this period.

We have just completed a revision of the GWRC Parks’ Fire Plan and have sent this to the various fire authorities. Fire training and assessment of staff is stepping up in conjunction with DoC.

Wainuiomata Catchment walking tours have recommenced for the season. The first tour was held on 12 October and, while this was a smaller turnout than usual, remaining tours for this year are fully booked and next year’s tours are expected to fill quickly with the publication of the Regional Outdoors Programme. A second tour held on 2 November was filled by Eastern Hutt Rotary and we have received excellent feedback.

The East Harbour Multisport event was held during October, with 80 participants. Unfortunately we had to hold the bond until paint markings were removed by the organisers from the Lakes Block bike route. This has now been rectified and the bond released.

A wet and windy Labour Weekend meant a slow start to the camping season at Kaitoke Regional Park. However, an electrical short-circuit caused the pump for the septic tank systems at Kaitoke to shut down over Labour Weekend. This was a good test for the system before summer and we have fixed this problem.

Our Environmental Team has completed a report on the “link track” which is suffering from overuse in the Akatarawa Forest. The report has been presented to ARAC with a request that they come back to use in the New Year with suggestions of how we can promote the closure of this track. ARAC seems to appreciate the concerns we have and it is hoped this is an issue that GWRC and ARAC can resolve together.

The Cheviot Road Track behind Lowry Back has now been brought up to standard. The upper section of the track has been rerouted to remedy grade and water issues. The track now offers stunning views over Lowry Bay and Wellington Harbour. The bottom end of the track runs through a remnant of kahikatea/matai forest that is prone to wash out.

As this is one of Wellington Harbour’s few remaining examples of coastal swamp vegetation, specialised matting was laid along the route and the surface was then built up burying the roots along the way.

The McKenzie Road Track, which runs through the Butterfly Creek valley at East Harbour Regional Parks, contains the bulk of the parks’ track structures. Recent work has now seen all of these upgraded to meet New Zealand track standard criteria. In addition to this, over 300 m of track has been regraded and rerouted where needed.

Marketing and Design

Review of operations for the period ended 31 October 2008

1. **Manager's comments**

We are still working to secure agreement with our city council customers regarding consistent communications around base water restrictions and responses to potential water supply shortage situations. The work completed on the various "trigger" scenarios puts us in a much better position than last year in terms of anticipating what measures might be required at what point next summer and taking the appropriate steps to implement them.

Preparations continue for the launch of the Regional Outdoors Programme in early December. Once again we expect a very enthusiastic public response to the range of events, the first of which starts on 27 December. We are also looking forward to the new *Big Backyard* event at the Hutt City I-site in late November, as an opportunity to promote the parks (and a couple of rangers) to people who may be unfamiliar with them.

2. **Water Supply**

2.1 **Water supply**

2.1.1 Water restriction communication review

During the period Capacity advised us that the proposed water restriction "triggers" and the streamlining of the 'base' watering restriction communications across the water supply area has not yet been agreed by the city councils.

We have achieved broad agreement on the concept of certain levels of water restrictions that correspond to particular circumstances (the "triggers") but there is no specific commitment prior to a real shortage situation arising. We will continue to seek more detailed commitments from our city council customers in areas such as approaches to commercial water users in times of shortage. In any case we now have a much more detailed set of guidelines that will help us considerably should summer 2009 prove as dry as 2008.

Communications around "base" water restrictions relates to such items as "odd/even" watering days, permitted watering times and when councils would institute patrols to monitor compliance. We will also continue to work towards agreement on detailed wording for higher levels of watering restriction, such as those used last summer for the sprinkler ban.

2.1.2 Water conservation

Our mulch campaign commenced on 1 November and will run for four weeks. Encouraging people to use mulch on their gardens, it aims to help reduce outside water use during the summer. It consists of print advertising in *The Dominion Post* and local newspapers, radio advertisements, a press release and point of sale posters at participating retailers.

The *Be the Difference* web site features more detailed information about mulch, as well as the specific offers from the participating retailers.

The summer water conservation campaign will use the same creative material as last year, with minor tweaks to the copy. At the time of writing, a media schedule and various other details were being developed.

2.1.3 Water efficient fittings promotion

Sinclair Knight Merz (SKM) and the Sustainability Trust hosted a meeting in October to gauge support for a trial project centred on water conservation voluntary behaviour change in our Region. A range of potential partners was represented including GWRC and Wellington City Council (WCC). It was apparent that, while there is some interest from many of the other agencies represented, the project is unlikely to progress unless GWRC and/or WCC take the lead and drive it forward. We see merit in the proposal and see it as a possible element in the implementation of the Regional Water Strategy.

2.1.4 Annual Report

This provides our customers and other stakeholders with a detailed record of our activities and achievements for the 2007/08 financial year. Writing of the report has been completed and a new layout designed to make key “top line” information stand out more readily. Final revisions, editing and layout changes were in progress at the time of writing. A separate report gives more detail.

2.1.5 Treatment plant visits

As at 10 November, two tours were booked to be hosted during the reporting period, with some 40 visitors.

2.2 Parks

2.2.1 Brochures

Several of the Parks’ brochures are being updated and reprinted because of low stocks. These include those for the Akatarawa Forest, Battle Hill, Hutt River Trail, Queen Elizabeth and the Regional Parks network. This job should be completed by the end of November. A brochure reprint for Kaitoke Regional Park was completed during the period.

2.2.2 Signs

Design of the Parangarahu Lakes Area signs has been completed and they were printer-ready at the time of writing.

We are currently on track to get the map boards and signs for the Historic Places Trust in place before Christmas.

2.2.3 Maps

Fire maps of the parks and forests were prepared for the ranger team. These are modified from the existing hazard maps and show such features as water pickup areas and vehicle accessible entrances.

2.2.4 Other publicity

The *Regional Parks Report 2007-08* was printed and distributed to around 500 people and organisations on our mailing list, including the newly elected regional Members of Parliament.

Planning has continued for the “Big Backyard” outdoor expo to be held on Sunday, 23 November at the Hutt City I-site and surrounding area. Hutt City Council is co-ordinating event advertising on behalf of all the partners, which include GWRC and DoC. The Kaitoke Regional Park ranger will be a guest speaker in the morning and Hutt River Ranger will speak in the afternoon. We will also set up a display promoting the regional parks and staff will be on hand to answer questions.

Amanda Cox delivered a presentation on *Who visits Wellington’s regional parks and how do they benefit?* to the Healthy Eating Healthy Action conference held at Te Papa on 3 November. The aim of this exercise was to raise the profile of parks to the health sector and particularly how they may assist in achieving health outcomes. The conference also contained some useful information on how we might improve our evaluation processes and we will be taking some of those points on board over the coming months.

3. Events

3.1.1 Regional Outdoors Programme 2009

The redesign for the Regional Outdoors Programme insert for *Our Region* has been completed. The full programme of events goes live on the web site and included in the December issue of *Our Region* and several thousand extra copies will be distributed to organisations and individuals on our mailing list. Early January will see the start of our radio advertising, while selected events will be promoted in community newspapers. Press releases (including photos) focused on particular events will be sent to those newspapers before Christmas.

3.1.2 Buggy walks

Despite cold and windy weather, 115 parents and children participated in the buggy walk at Queen Elizabeth Park on Thursday 6 November.

3.1.3 Planting days

Corporate plantings have concluded for the year at Queen Elizabeth Park. Kaitoke Regional Park hosted 25 staff from Parliamentary Services and a small group from Shell.

4. Landscape Planning

Development of the lookout area at Te Marua has been delayed with the contractor required for other Water Supply work commitments.

Planting associated with the Lookout will have to be delayed until next May. A list of plant species and numbers required has been completed for the Wainuiomata Lower Dam planting to be held in 2009. Ordering will take place shortly, with the money to come from the Honda Treefund.

5. Community liaison

During the period staff attended monthly meetings of the Friends of Belmont Regional Park, the Friends of Maara Roa and the Friends of Queen Elizabeth Park. Each of these meetings involves servicing requests, researching and sourcing information and assisting with events. For example, GWRC has provided information and written support for the Friends of Queen Elizabeth Parks' application to DoC's Community Conservation Fund for the extension to the QEP Remnant Bush. Other regular meetings included those with the Akatarawa Recreation Access Committee and the Hutt River Trail Operations Group (comprising representatives of the Hutt Valley city councils, Rotary and GWRC Flood Protection and Parks).

Ross Jackson co-ordinated the judging of the GWRC Rata Environment awards and assisted with the planning and running of the event. The judges were most impressed with the quality of the nominations and the applicants enjoyed the opportunity to show off their work as part of the judging process.

Planning has started for the 2009 Restoration Day, which will be held in Porirua.

6. Staff

Two staff took part in the regional Operation Phoenix emergency management exercise.

7. Water usage

Charts detailing water sales for the year are on page 11.

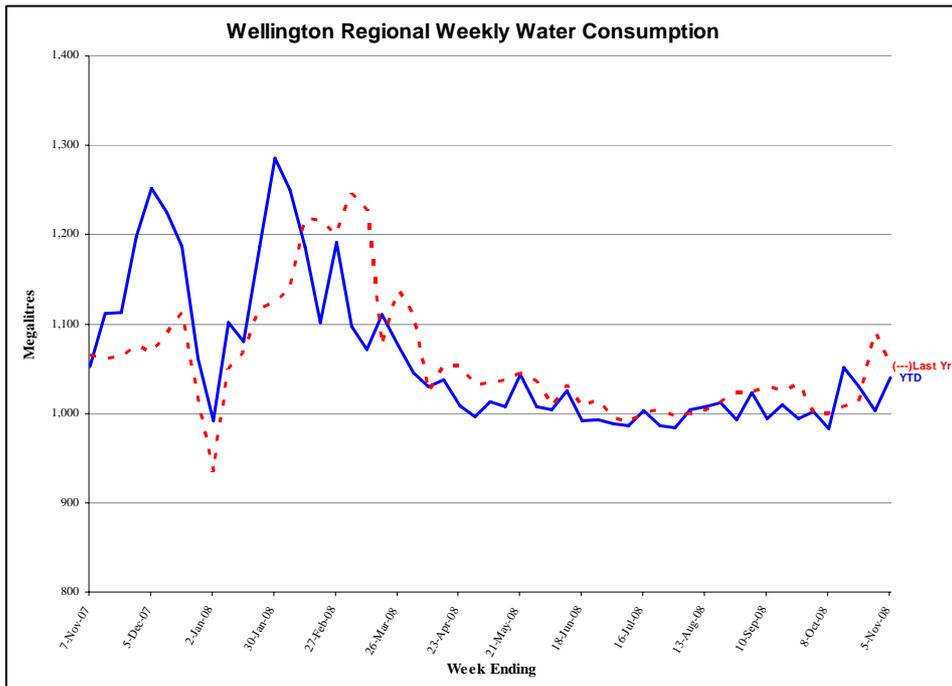


Figure 1 - Water sold over the last 12 months

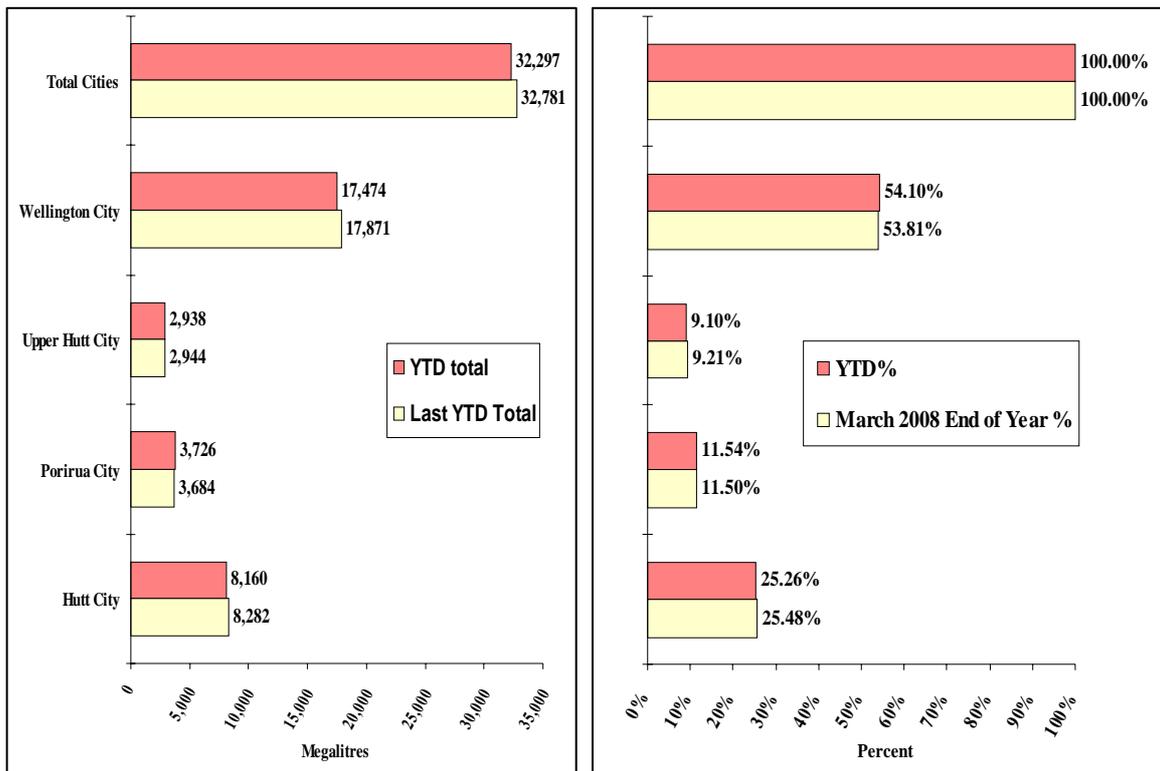


Figure 2 - Water sold during the metering year to date [April 2008 to March 2009]

Forestry

Review of operations for the period ended 31 October 2008

1. Plantation forests (Wellington)

1.1 Log Harvest Contract

Although the weather has been getting warmer, there have been regular violent storms and plenty of rain. Despite this, harvesting has continued as usual with no access problems for the trucks.

Last month I increased my wind-throw estimate to 10 ha. Since then I have located an area within Boiler Gully with almost 80 percent wind-throw. This appears to have been caused by a “rogue” wind from an unusual direction and was not assisted when the neighbouring trees which were in Kilometre were removed. These were felled over 12 months ago and I would have expected these trees to be wind-firm by now. However, while they could stand in the prevailing northwest wind, a southeasterly caught them out. The ground based crew from Log 6 will harvest these trees when they have completed Kilometre toward the end of November.

This crew has been based at the northern side of Kilometre all month.

Log 36 has remained at Blowfly off the new skid on the northern ridge. They will move further west along this ridge in early November. It is anticipated this block should be completed by late January.

This month Log 6 harvested 2,534 tonnes from Kilometre and 162 tonnes of wind-throw from Airstrip for \$84,031 at an average stumpage of \$31.17. This was a vast improvement from the \$15.03 achieved last month.

In October Log 36 harvested a total of 2,384 tonnes from Blowfly for \$59,903 at \$25.12 per tonne. The lower stumpage reflects the lower quality trees as harvesting approaches the top ridge of the block, increased costs related to the hauler operations and the additional distance the forest gate at Valley View.

As predicted, there were further improvements in export prices because of the easing dollar and reducing fuel and shipping costs.

While direct comparisons are difficult because of the sale unit being JAS, examples of the improvements are:

Grade	August	September	October	Variation from August
PP	96.06	99.42	115.71	+20.4
A	70.95	83.29	89.75	+26.5%
K	71.12	74.55	81.46	+14.5%
KI	55.86	69.20	75.01	+34.3%
KX	44.77	45.77	43.17	-3.5%

In total, October production was 5,079 tonnes for \$143,945.

There is some confusion regarding the end of year closedown. We had been warned to anticipate a longer than usual break due to the Chinese New Year which falls in mid January. There are now suggestions that we may closedown at the end of November and restart earlier on 5 January. This option raises issues over the wind-throw in Boiler Gully, which needs to be recovered prior to Christmas, and how the domestic markets are to be supplied. We will be working these issues through with Rayonier in the next week or so.

1.2 Silviculture Contract

The new silvicultural contractors are working satisfactorily.

In October 34.2 ha of silviculture was completed.

1.3 Plantation Forestry Operations

Staff have concentrated on supervision of the silvicultural contractors and checking the quality control plots. Other contractors have carrying out routine maintenance on the logging roads and planning is under way to reapply millings to the first 2.5 km of the Valley View access road. The millings ensure there is no dust nuisance and prevent the trucks tracking mud out on to the highway. This work will scheduled when the dates of the harvest shutdown are known.

The fire equipment has been inspected and serviced in readiness for the new fire season.

Repairs to gates have been made following damage or vandalism.

1.4 Forest Access

The lack of access into Maungakotukutuku remains.

All main roads are in good order. If an early closedown does occur, we would like to take the opportunity to construct a road from Blowfly to the foot of the Kaika Mako block. The only existing access is not suitable for upgrading for trucks and about 750 m of new road will be required. This will allow the “new” hauler to sit below the block and haul downwards.

There have been no more incidents of vandalism or theft from the logging contractors since they moved their bulk diesel supply off-site.

1.5 Market Trends

As stated above, export prices further increased this month mainly because of the easing dollar. A further increase is predicted for November and December after which it becomes a little murky as no one is sure how quickly the Chinese industries will wind back up after there New Year celebrations.

Domestically there are indications of increased demand, although this has not translated into price increases. For our two most popular grades we are currently supplying at a lower price than on offer at the port. This is necessary to ensure that these outlets remain available to us at times when export prices are as high.

Eurocell at Upper Hutt is still not purchasing from Rayonier.

2. Reserve forests (Wairarapa)

2.1 Logging

Logging has progressed steadily opening up the road line adjacent to the southern boundary of Tauanui. This ridge line timber has been predominantly export wood, which is currently returning good prices. It had always been the intention to harvest this area when export prices were good, so that returns would be optimised from trees that could be best described as scruffy because of exposed growth conditions.

The total tonnage for the month was 1,116 tonnes at a net return of \$28.47 per tonne. Both the volume and net return are improvements on previous months' returns from this area.

We are awaiting the start of a second contractor. Market demands would also influence the start-up with December and January normally being quiet months because of mill shutdowns.

2.2 Roding

Contractors are making steady progress on the access road logged last summer on the true right bank of the Tauanui River. This is the start of the roding into the younger timber within Tauanui. It is anticipated that the current logging crew will move back into this area after Christmas and continue to the ridge on the north side of Tauanui. The road will then be extended to this ridge in late summer.

2.3 Rural Fire

Currently the fire danger indices are all low because of ongoing rain at regular intervals.

2.4 Feral cattle

A recent helicopter inspection of Stoney Creek in conjunction with feral cattle control work on neighbouring properties revealed no sign of two feral bulls that had been causing concern at Stoney Creek. They may have moved on to other properties as fences were no barrier to them.

2.5 Road maintenance

Removal of fallen trees has continued as required.

Water Supply

Review of operations for the period ended 31 October 2008

1. Supply situation

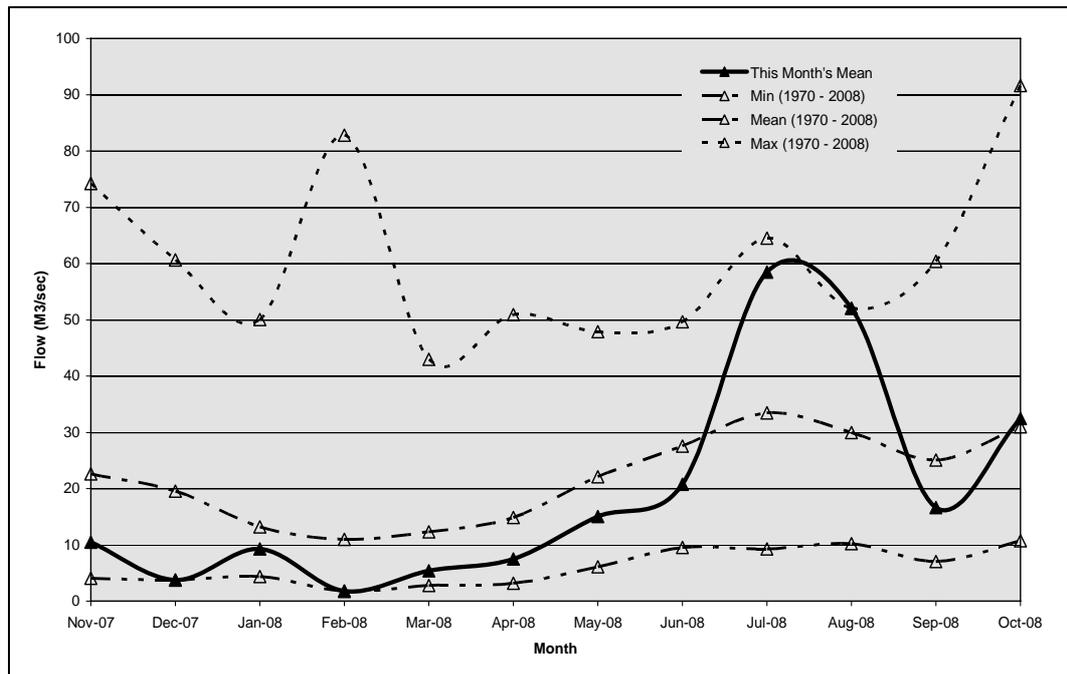
1.1 General

We are still experiencing slightly higher than expected power costs at Te Marua because of the higher pumping energy required when using Lake 2 instead of Lake 1.

Hutt City Council had an *E. coli* contamination at Naenae Reservoir. The Operations Section was requested to assist in the containment and control of the contamination and at Capacity's request isolated Naenae Reservoir and started chlorination of the Waterloo supply using our standby chlorination plant on Sunday, 26 October. This is the first time the chlorination equipment has been used and it operated to expectations. Chlorination of the Hutt supply continued to Wednesday, 29 October, when Capacity requested that we stop dosing.

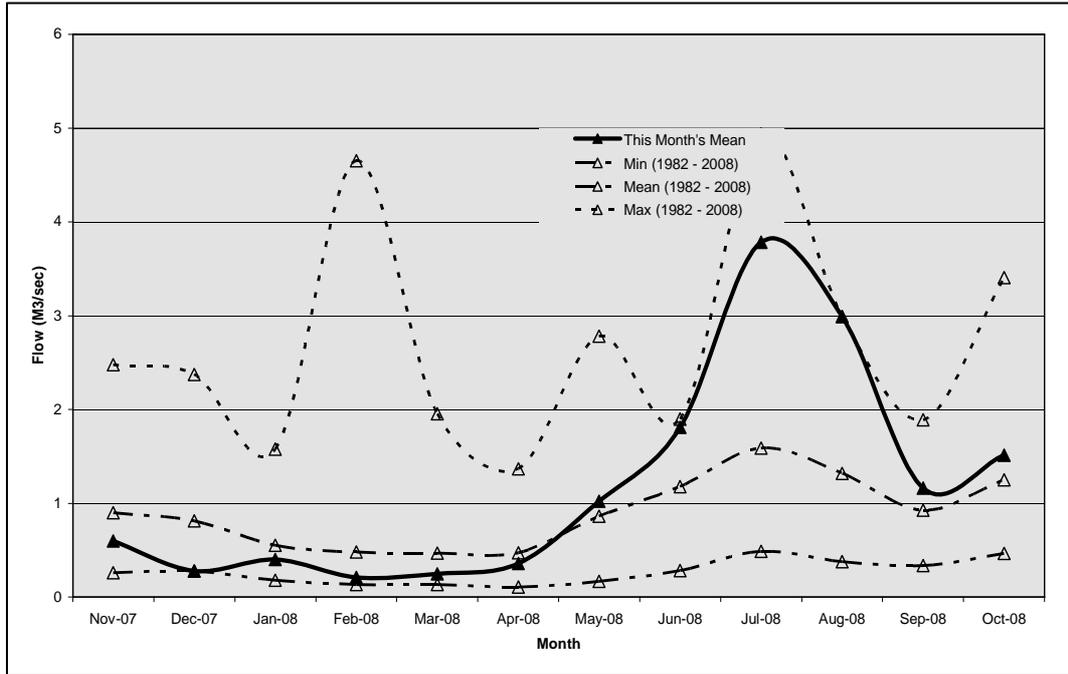
1.2 Hutt River flows

The mean flow for the Hutt River was at the average during October.



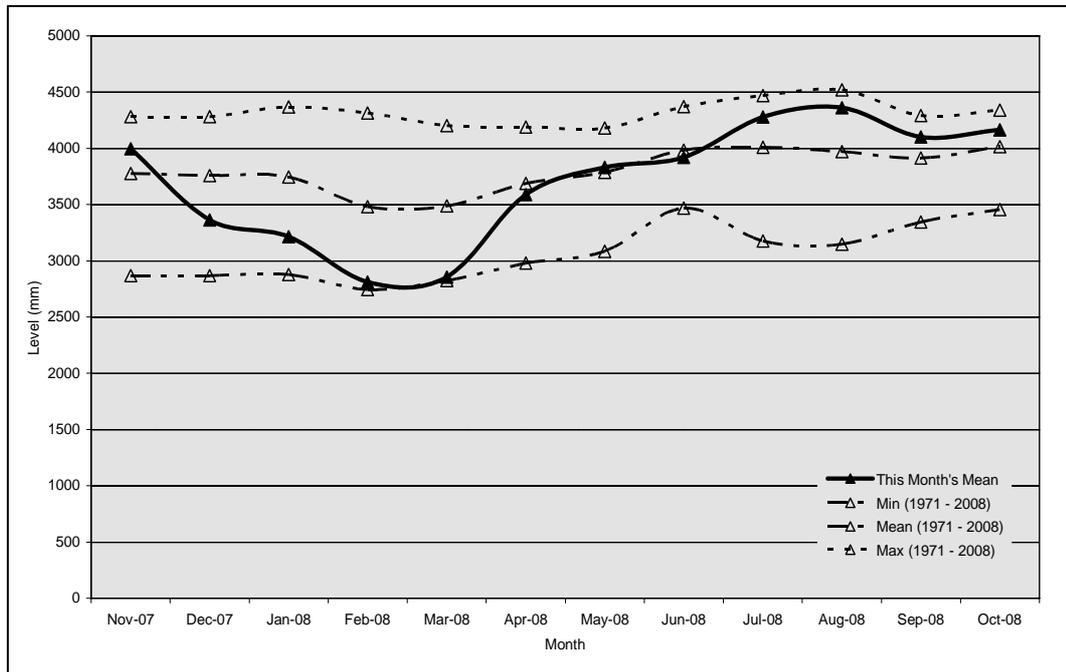
1.3 Wainuiomata River flows

During October the flow for the Wainuiomata River was just above average.



1.4 Aquifer levels

The water level in the Waiwhetu aquifer was above average during October.



2. Stuart Macaskill Lakes

The design of a repair system for the failed seal at the base of the Lake 1 tower at Te Marua has been completed and construction is under way.

Wet weather and complications with design and installation have hampered progress, as has the availability of specialist grouting contractors.

The present estimate for completion is late November. Although this timing is much later than expected, we still feel that we have time to refill the lake before the high demand/dry weather period begins after Christmas.

The costs for the repair work have increased significantly because of the delays and additional time required to agree on an effective construction method. The current forecast for completion of the project is \$250,000. These additional costs will be accounted for in the six month financial review.

3. SAP asset management system

This has been a quiet period for the SAP subject matter experts. The SAP consultant was recently replaced and the new consultant is familiarising themselves with the project to date. The blueprint has been revisited and is expected to be reissued within the next week. Final sign-off of this stage is expected at the end of November 2008.

5. Restructuring

There are four more positions to be filled, three of which are presently being advertised. One position has been put on hold as two of the external appointments have a broad range of skills and experience, which would be utilised to cover the requirements of this role.

6. Water Supply project summary

The following is a summary of the capital works projects as at the end of September:

Total projects 56

Total budget \$5,007,000

Total forecast (as at 1 October) \$4,819,403

Unbudgeted projects – four \$460,000

Expenditure to be confirmed (eight projects) \$1,117,000

7. Unbudgeted projects

The Tinakori Road scour valve is an unbudgeted project. The forecast for completion this financial year is \$40,000. This project will be funded from the Distribution valve replacement budget of \$70,000.

Karori fault crossing project relates to the seismic issues associated with the Wellington Fault at Karori. This has been compounded by the pending sanctuary building. The forecast is \$100,000 (± 25 percent). This will be revised by the end of November 2008. This project will be funded from the hazard protection budget of \$200,000.

8. Catchment management

- All main roads were sprayed for weeks over the past month.
- The GWRC digger from Upper Hutt was used to clear culvert intakes and water tables.
- The track down to the Orongorongo River gauge was upgraded.
- Further wind-throws were cleared following the storms.
- There was one tour this month with 28 participants. It was a fine day enjoyed by all.
- A motorcyclist was caught accessing the Moores Valley Track from a neighbouring property after removing the chain staple. The culprit was identified and no further problems are anticipated.

Development and Strategy

Review of operations for the period ended 31 October 2008

1. Water Supply Strategy

- GWRC officers were invited to attend the Hutt City Council Strategy and Policy Committee meeting to provide a presentation and answer questions on the proposed water supply development strategy. GWRC senior officers and their consultant attended. A summary of the documentation for a consent application to reduce the minimum flow at Kaitoke was provided and specific questions on this issue were answered. However, the media publication following the meeting contained statements that did not accurately represent the discussion at the meeting.

Hutt City Council resolved to support Whakatikei as the preferred site for a dam, the raising of the Stuart Macaskill Lakes and construction of the Central Business District (CBD) reservoir. Hutt City Council expressed concern of potential impacts on the Hutt River and Waiwhetu aquifer from lowering the flow at Kaitoke and developing the Upper Hutt aquifer. Further information will be provided to Hutt City Council as a result of ongoing studies.

- Feedback on the wholesale water supply development strategy has now been received from all city council customers, except Porirua. Following a presentation to their City Services Committee in October, we understand that Porirua City Council is currently working on an official response. We are hopeful that feedback will be received in time to allow it to be incorporated into the draft 2009/19 LTCCP and 2009/10 draft annual plan.
- An analysis of the timing and cost of water supply development options (with and without demand management of 15 percent over 15 years) has been completed as input into the LTCCP capital expenditure programme.
- GWRC officers were invited by Kapiti Coast District Council (KCDC) to attend a tour of potential sites for a new dam to solve the coast's water supply problems. Comments on the dam sites visited have been passed back to KCDC and an offer made to continue to provide technical input.

2. Water Supply Development

2.1 Stuart Macaskill Lakes

A proposal has been received from Tonkin and Taylor Ltd to examine the likely performance of the lake lining and embankments under the seismic load identified by GNS Science for a Wellington Fault movement. This will provide an assessment of the current seismic performance of the lakes and recommend mitigation measures to ensure that the level of risk is at least maintained following raising of the lake level.

2.2 Kaitoke weir consent

A draft of the consent application to reduce the minimum flow of the Hutt River at the Kaitoke intake has been reviewed by GWRC Environmental

Division and a meeting has been arranged to discuss the associated issues. The draft application and the assessment of environmental effects and scientific reports have been sent to key stakeholders for feedback (Fish and Game New Zealand, DoC and iwi). The application makes a strong case that the effects of reduced minimum flow on river system ecology at Kaitoke will be no more than minor. However, this project is one of the short-term options still to be formally approved by Council.

2.3 Central Business District (CDB) reservoir

Wellington City Council (WCC) has recently modified its storage requirements marginally, such that a total reservoir capacity of 50 million litres (ML) is now planned. GWRC's share of this capacity is 7.5 ML. Consultants recently provided a cost estimate for a 56 ML reservoir. The small reduction in capacity will have only a marginal impact on cost. GWRC has not yet agreed its share of the total cost with WCC but a budget sum will be included in the draft LTCCP.

Because of WCC's review of capital expenditure and lack of confirmed funding from Capital and Coast District Health Board for Wellington Hospital's share, the reservoir is likely to be delayed. It is not expected to be completed until 2013 and this timing will be programmed in the draft LTCCP.

2.4 Upper Hutt aquifer

The final version of the risk assessment report and a summary report, have been received from the consultant. Numerical modelling to assess the impact of water abstraction from the Upper Hutt aquifer on the Hutt River is proceeding. Railway land adjacent to the Upper Hutt Railway Station was being considered as a potential site for a water treatment plant. However, this land is no longer considered surplus by ONTRACK.

3. Water Supply Risk Mitigation

GNS Science has been commissioned to undertake a computer analysis to predict the breaks in the wholesale water supply network resulting from movement of the Wellington Fault and the expected time for repair. The exercise will then be repeated assuming the Whakatikei dam is in place, to provide an indication of the security of supply benefits of the dam. In association with this study the Wellington Lifelines Group is undertaking an exercise to describe the impacts of a Wellington Fault movement on utilities and the community. Our aim is to be able to evaluate the benefit of the proposed Whakatikei dam in both financial and social terms.

The Kaitoke water supply pipeline to the Bell Road Reservoir crosses the Wellington Fault line three times at the Karori Wildlife Sanctuary. One of these crossings is in a tunnel 11 m below ground level. The Sanctuary Trust is currently constructing a new visitor centre partially over the pipeline tunnel. This has provided an opportunity to reroute the pipe and make a new connection to the existing pipe in the tunnel, which will reduce the fault crossings to one location that can be easily accessed and repaired. The modification will allow quicker reinstatement of the water supply to the Wellington Central Business District following movement of the fault line.

4. Renewable Energy

4.1 Orongorongo power generation

The project to install an electricity generator on the Orongorongo supply pipeline to the Wainuiomata Water Treatment Plant, as previously approved by the Committee will be include in the next LTCCP to commence construction during the next financial year.

4.2 Te Marua power generation

Investigation of the hydro-power generating opportunities at Te Marua is planned to be carried out in the second half of this financial year. The investigation will build on the work carried out last financial year on using a lake pump as a turbine.

4.3 Stoney Creek wind farm

Meridian Energy is planning to erect a 30 metre anemometer mast on the Stoney Creek site by Christmas to allow wind data to be collected over the following 12 months.