
Water Supply and Parks

May 2009

Parks

Review of operations for the period ended 31 May 2009

1. Manager's comments

1.1 General

The autumn maintenance programme continues and ranging teams are working well despite recent cold and inclement weather conditions. Park visitor numbers across the network have dropped significantly as we have gone from an "Indian summer" straight into winter.

1.2 Parks Network Strategy

Responses to the questionnaires about the future purpose of regional parks have been received from clubs, interest groups, Friends of the Parks, territorial authorities and Government Departments.

The closing date for the return of the questionnaires was 22 May but this was extended until 29 May. Sixty-three questionnaires have been logged. Officers will be analysing the feedback from this consultation phase and will be presenting this information at workshops planned for July and August.

1.3 Hutt 1080 operation

Everything is nearly ready to go for the Hutt Water Collection Area 1080 operation. The non-toxic feed bait will be flown in the first available fine-weather window. This will be followed by the sowing of the toxic bait after a period of at least a week.

1.4 Rimutaka Summit decommissioning

Demolition of the Rimutaka Summit Hill toilets has been completed.

2. Policy and Planning

2.1 Policy

Councillors considered the written submissions for the draft *Battle Hill Farm Forest Park Management Plan* at the 12 May Committee meeting. Deliberations on any changes to the draft plan will take place at a future Committee meeting.

2.2 Environment

2.2.1 Monitoring

Rodent tracking has been completed in Eastern Hutt prior to the planned 1080 operations. Rat prints were found in 55 percent of the tracking tunnels. In East Harbour Regional Park rodent numbers have increased in the mainland island area. The monitoring completed in May showed tracking to be at 34 percent inside and 76 percent outside the mainland island. This increase in rat tracking has been seen previously at this time of year but it is hoped that rat numbers will fall again before spring when bird nesting begins.

Possum monitors of Speedy's Reserve and Cannon's Creek in Belmont Regional Park during May have shown excellent results. In Speedy's Reserve possums were at 2.3 percent residual trap catch, which indicates how effective the current bait station regime is being in controlling these pests. In Cannon's Creek the result was 0 percent residual trap catch! This bait station network is maintained by volunteers (Friends of Maara Roa), so congratulations are owed to them for their good work.

2.2.2 Pest control

The initial knockdown of possums in the new bait station extension in Korokoro Valley has been completed, while bait stations have been refilled in the rest of the Korokoro control area, Speedy's Reserve and Dry Creek.

Holly is a bad environmental weed, as it can grow up in shady conditions similar to those preferred by regenerating native trees and shrubs. Holly trees are also notoriously difficult to control, as they compartmentalise damage to their tissue and sprout readily from other parts of the plant. This weed is an issue in Battle Hill Farm Forest Park where we have had success in felling trees and painting the stumps. In Belmont Regional Park we have been completing a trial of techniques to control standing holly. Three chemicals (Tordon, Escort and Vigilant) and two control techniques (ring barking and drilling) are currently being tested in the Sweetacres Block.

3. Western sector

Late in this period we have been preparing for the winter planting season. Various plantings are planned across the sector, the main events being Arbor Day celebrations at Queen Elizabeth Park and Battle Hill. Other events involve parks' "Friends" groups or local schools.

Many organised events have occurred this period, including the Porirua Grand Traverse (using Battle Hill, the Akatarawas, Belmont and Whitireia Parks) and a pony club gymkhana held at Battle Hill. Both events were supported by our ranging staff.

Work on a draft *Battle Hill Sustainable Land Management Plan* has been completed. This plan is the first produced for our Western Sector parks. This document will provide a blueprint for the sustainable ongoing management of Battle Hill. Once the plan is finalised, we will move on to completing plans for each of our other parks. The plan findings will be presented to Councillors at a later meeting.

Interviews for the Ranger, Battle Hill Farm Forest Park position (currently vacant) were undertaken this month. There was a wide variety and many candidates for the position. We hope to confirm the successful candidate in mid-June.

At Queen Elizabeth Park we are extending the brick pillars at the Wellington Road entrance to elevate the entrance archway, which is repeatedly damaged when high vehicle trucks delivering to the campground crash into the archway.

4. Eastern sector

As mentioned in previous reports, the Parangarahu Lakes area of East Harbour Regional Park is one of Wellington's special places, having outstanding environmental, cultural and recreational values. The area contains a unique wetland ecosystem of national significance, yet potentially there is so much more that could be achieved. In particular, natural regeneration and assisted revegetation beyond the wetland margins has huge benefits for biodiversity. However, encroachment of wandering stock from neighbouring properties continues to have an adverse impact on the recovery of the wider ecosystem. Although there has been a continued effort to upgrade shared boundary fence lines, it is stock roaming freely around the foreshore that is an ongoing problem and generally one beyond our control. To counteract this, we have now, very cost effectively, begun upgrading the old coast road fence and extended existing fence lines into the Kohangapiripiri and Kohangatera Lake beds, effectively protecting at least half the block from stock intrusion.

The major event for April was the running of the public hunting programme for the annual roar hunt in the Wainuiomata/Orongorongo Water Collection Area. The weather was better than it has been for some years. The hunting effort per man hour was less than previous years but most hunters that entered the catchment enjoyed their visits. The final kill result was quite good, with six deer, six goats and four pigs being shot. Good feedback was received from several hunters. Letters will be sent to all block holders giving the hunters details of the final kill and information regarding the hunting event.

The East Harbour hunting ballot was also held, with no deer being shot and only one set of hunters claiming to have tracked a stag.

Visitors numbers at Kaitoke Regional Park have dropped with the end of daylight saving. Easter was fine and settled, so campers made use of the last of the summer. Students camping over the school holidays created a few minor issues with their behaviour.

Pest control continues throughout the forests, with five goats having been shot in Pakuratahi Forest and two in Akatarawa Forest, as well as numerous hares, rabbits and possums throughout these areas. In East Harbour the new Lowry Bay trap line marking has been completed and possum traps and bait stations installed.

With the completion of another fenced plot in the Parangarahu Lakes Area - this time on the eastern shoreline of Lake Kohangatera - MIRO and Forest and Bird volunteers are all set to get this years planting under way. All plants are eco-sourced and grown at the MIRO nursery in Lower Hutt.

With the Regional Outdoors Programme now complete and the onset of winter, the number of large events has now reduced dramatically. We are back to small club events such as the Kapiti Car Club, which is about to have a rally sprint using the logging road access, and a proposed Army event involving 140 Army personnel in the forest.



Below - Views of the upgraded boundary fencing at Parangarahu Lakes area



Marketing and Design

Review of operations for the period ended 31 May 2009

1. Manager's comments

1.1 General

Around once a year we meet with our four city council customers and Capacity to review key developments and consider new projects coming up. Such a meeting is planned for early July, with topics of discussion including the planned capital expenditure programme, results of the summer water conservation research and campaigns to be run in the new financial year. We will also update customers on domestic water use estimates and progress with investigating viable alternatives to the current system of pricing wholesale water supply.

The recent meeting with territorial authority staff who work with mountain biking groups was very positive and illustrated some of the issues that we are looking to resolve through the Wellington Regional Strategy Open Spaces project. Mountain biking is a sport with plenty of growth in Wellington. Providing a well co-ordinated range of recreation opportunities across the Region will prove very attractive to residents and visitors alike.

We have provided comment to Greater Wellington Regional Council's (GWRC) new Active Transport and Road Safety Co-ordinator regarding opportunities for the Wellington section of the national cycleway project, which is to be forwarded to Positively Wellington Tourism. Completing the link between the Rimutaka Rail Trail and Hutt River Trail at Te Marua would be the last step in providing an already formed 50 km off-road trail from the Wairarapa through the Hutt Valley to Petone, which could eventually link up with other cycleways to urban areas and significant coastlines.

1.2 Water supply

1.2.1 Summer water demand management plan

During last summer we made first use of this plan, which was developed in response to the very dry 2008 summer and includes a number of "trigger" actions based on various water supply scenarios. As a result of trialling the plan, we identified a number of minor improvements and have presented these to our customers for their approval. We have also asked them to confirm in writing that they will fully and quickly implement the relevant actions within the plan should related trigger conditions occur. At the time of writing we were awaiting their responses.

We have been mindful that there is some excellent water conservation information available on the *Be the Difference* web site that could be more widely promoted. We are working on turning the tips and information into four A4 leaflets to cover "what you should know" about irrigation, water-wise planting, water equipment and mulch. When completed, the leaflets will be available for distribution at events or community meetings and to print off from the web site.

1.2.2 Research

We have commissioned research to investigate awareness of our summer 2009 water conservation communications and several aspects of garden watering behaviour. Interviewing was completed in May, with reporting due in late June.

We have been advising the Ministry for Environment's Sustainable Households Project Team about a research project it has commissioned: a detailed investigation of attitudes and behaviour concerning water efficient washing machines, water metering and garden watering. The Ministry conducted focus group research in Wellington and Auckland during May and expect to have a final report by the end of June. We provided input to the project planning and development of the discussion guide, and have recently taken part in a session to discuss the results.

1.2.3 Domestic water use estimates

For several years GWRC has published annual data for both total water supply and total supply per head of resident population. This latter figure has sometimes been assumed to be residential water use, which has resulted in misleading comparisons with other supply areas. Various other presentation issues have added to a degree of uncertainty about local water use.

To address this situation, we have approached our four customer councils for their current best estimates of residential water use and have been working with them to ensure that a consistent set of data and definitions are used by each of us when describing local water use. We expect to have reached agreement on this matter very shortly. This information will be part of that published in future Water Supply annual reports.

1.2.4 Annual report planning

Planning for the 2008/09 Water Supply annual report has started. A timeline has been developed and requests for information sent to contributors. A new designer has been appointed in conjunction with GWRC's corporate publisher and we are working through layout and presentation details. A content outline is currently being worked on. A draft report will be presented to Council at the September meeting.

1.2.5 Filming at Kaitoke and Te Marua

A student from the New Zealand Film and Television School conducted some filming at Kaitoke Regional Park and at the Te Marua Water Treatment Plant at the end of May. He is making a short documentary on Wellington's Water Supply with particular focus on the process of water treatment. He hopes to increase awareness of the journey water takes from rainfall to the household tap.

1.3 Parks

1.3.1 Regional Parks' network strategy

We expect to receive the initial report from the public survey conducted as part

of the information gathering process in early June. A summary of this information will form part of the presentation to Councillors planned for the end of July.

1.3.2 Regional Parks' Annual Report 2008/09

Work has begun on sourcing photos and developing text for the 2008/9 Regional Parks' annual report. A draft of the document will be presented to Council at the September meeting.

1.3.3 Parks' visitor research

A report on the work conducted in the Akatarawa and Pakuratahi Forests is being presented separately.

2. Events

2.1.1 Arbor Day

We were very fortunate to have fine weather in the first week of June. About 250 people attended our Queen Elizabeth Park Arbor Day celebration planting on Wednesday, 3 June. This included 200 children from Te Ra, Raumati South, Paekakariki and Te Horo Schools.

This was followed by another 300 people at the Friday, 5 June event at Battle Hill Farm Forest Park. A total of 250 children from Adventure, Holy Family, Pauatahanui, Paremata and Postgate Schools planted trees in the newly shaped "pond" near the woolshed.

In addition to this very enthusiastic turnout, another 90 people (80 children) from Maidstone Intermediate School are expected at an Arbor Day planting at Kaitoke Regional Park on Monday, 8 June.

2.1.2 Community and corporate planting days

We are fast moving into the main planting season, with many events scheduled in the parks. For the past several years GWRC funding has been supplemented by the Honda TreeFund, with the result that there are many thousands of trees ready to plant.

Considerable time has been spent scheduling and publicising planting days, so that people around the Region have the opportunity to take part. The four Honda dealers (Kapiti, Wellington, Lower Hutt and Wairarapa) have been invited to bring staff and customers along to various locations, which include Belmont Regional Park and the Wainuiomata Lower Dam. We have also been contacting previous participants in corporate planting days to encourage them along this season and will promote the concept via the media with the assistance of Corporate Communications.

2.1.3 Buggy walks

The May buggy walk was held at the Wainuiomata Recreation Area on the Gums Loop. While the day itself was fine, it was preceded by several days of rain, which we believe led to only 50 people taking part.

The June event was held at the Warriors Walk at Karori Cemetery on Thursday, 4 June. Fine weather saw 198 people participate - an excellent turnout.

3. Community liaison

3.1 Mountain biking

A meeting was held recently between staff of the territorial authorities on the western side of the Region, to improve our understanding of how the various councils work with mountain biking volunteer groups, what facilities are available for mountain biking, and what issues and opportunities we are faced with in the Region. Several items of interest emerged:

- Mountain biking is a mainstream form of recreation in the Wellington Region and is fast growing in popularity. The “original” mountain bikers are having families of their own and are looking for easy to intermediate tracks that children or novices can learn to ride on.
- Volunteers are typically more interested in building new tracks rather than maintaining current ones, with the result that councils usually meet the cost of the latter. There is ongoing pressure on councils to either build or allow volunteers to build new tracks.
- Some types of mountain biking are sought after yet not easy to provide in Wellington, e.g., areas for novices, downhill courses.

We found there to be considerable experience amongst those present in working with mountain biking groups and much interest in working together on possible solutions for these issues. A second meeting is scheduled for 23 June.

Another edition of the community newsletter *Green Shoots* will be published and mailed out to community groups and interested individuals during June.

3.2 Friends of Belmont Regional Park

We are working with the Friends on plans for a planting day on 11 July at the Stratton Street park entrance. Funding for plants is coming from the Honda Treefund.

They are also planning for a park “Open Day” to be held as part of the Regional Outdoors Programme in summer 2010.

3.3 Friends of Queen Elizabeth Park

We employed Boffa Miskell Partners to prepare a planting plan as a requirement of the \$26,000 Department of Conservation grant. We are also employing them to prepare a Development and Implementation Plan for the MacKay’s Crossing wetlands area. The aim of this is to guide development over the next decade and beyond to ensure specific projects are co-ordinated and that there is continuity of implementation irrespective of personnel changes. In addition, the plan will help to allocate and programme funding and resources.

3.4 Friends of Maara Roa

The group has held several meetings regarding a large scale planting day planned for 20 June. GWRC staff are helping the Friends plan, promote and prepare the ground for this event. It will give the group a boost and create a “feature” of the entrance to the restoration area, which is located near the park boundary with the Cannons Creek Lakes Reserve.

3.5 ARAC

To ensure everyone is clear on expectations regarding the management of the Orange Hut, a draft Memorandum of Understanding is being circulated and will be finalised at the next meeting on 22 June. This results from a misunderstanding over an earlier proposed use of the hut.

4. Landscape planning

Staff have prepared a proposal to extend public non-motorised access up the Wainuiomata River valley to the historic Lower Dam. This is tentatively scheduled for November 2011 to coincide with the planned alterations to the adjacent pipe yard. A corporate planting day will be held at the Lower Dam site in June as part of the process of making the location ready for public access. Trees are being provided through the Honda TreeFund.

5. Restoration Day

This very popular event was held at Te Wananga o Aotearoa, Porirua on Saturday, 9 May. With a theme of *Mountains to Sea - Total Catchment Management*, the event attracted a total 165 representatives from most of the environmental restoration groups in the Region.

6. Water usage

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

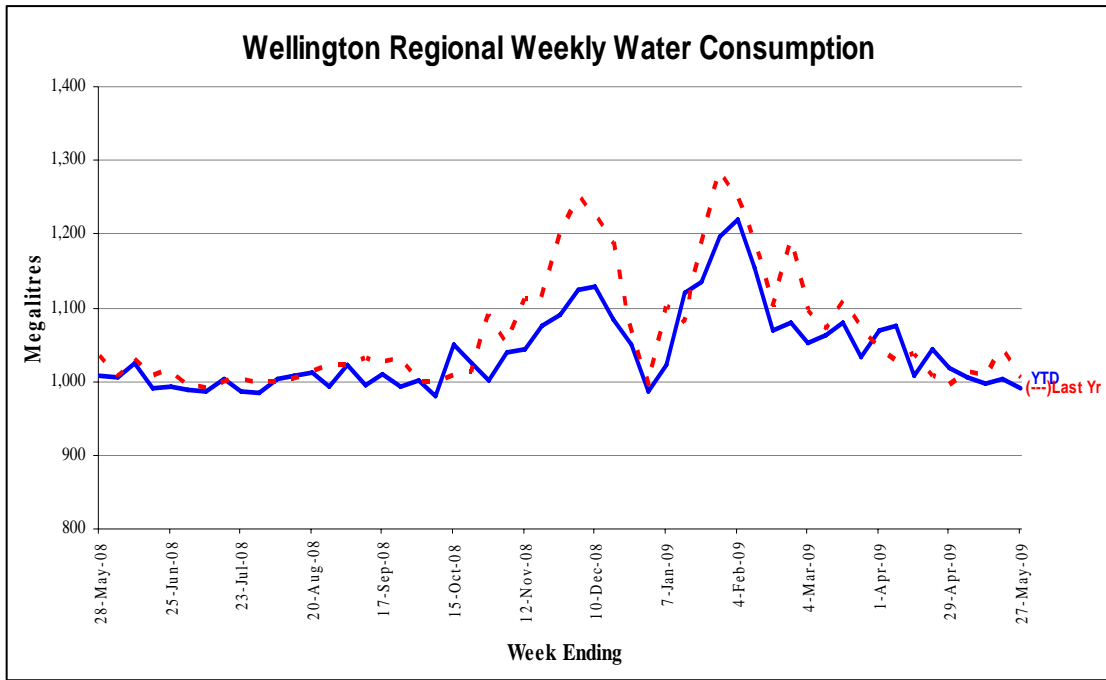


Figure 1 - Water sold over the last 12 months

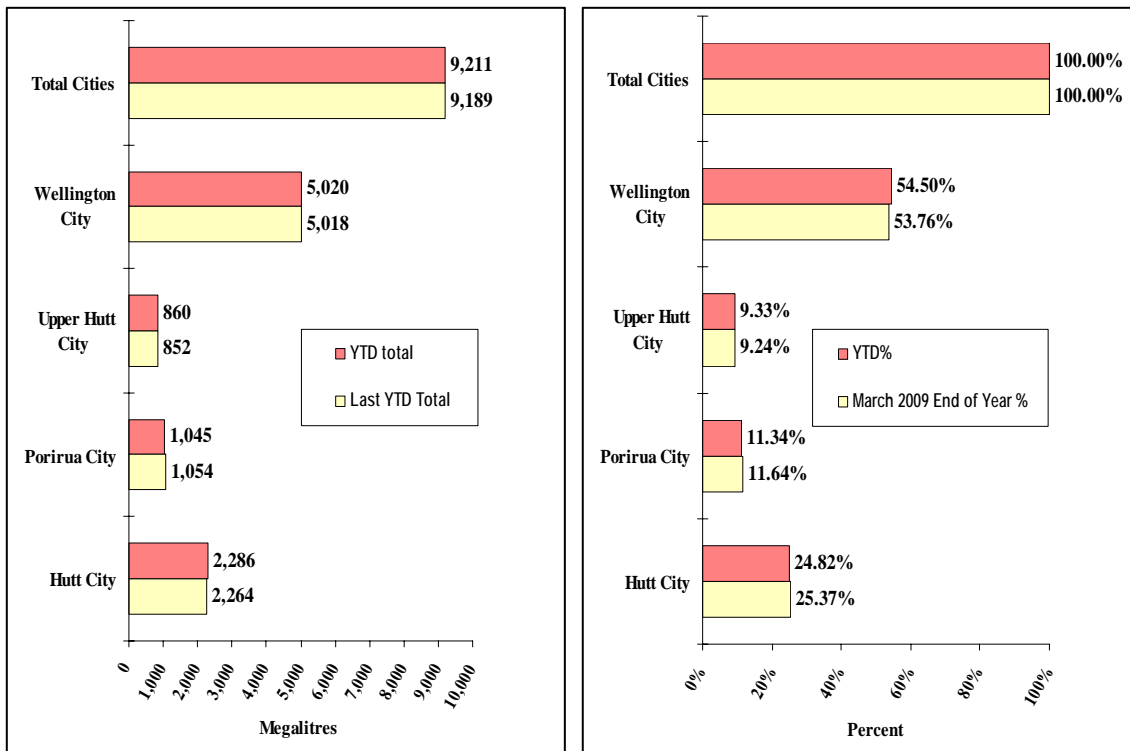


Figure 2 - Water sold during the metering year to date [April 2009 to May 2009]

Water Supply

Review of operations for the period ended 31 May 2009

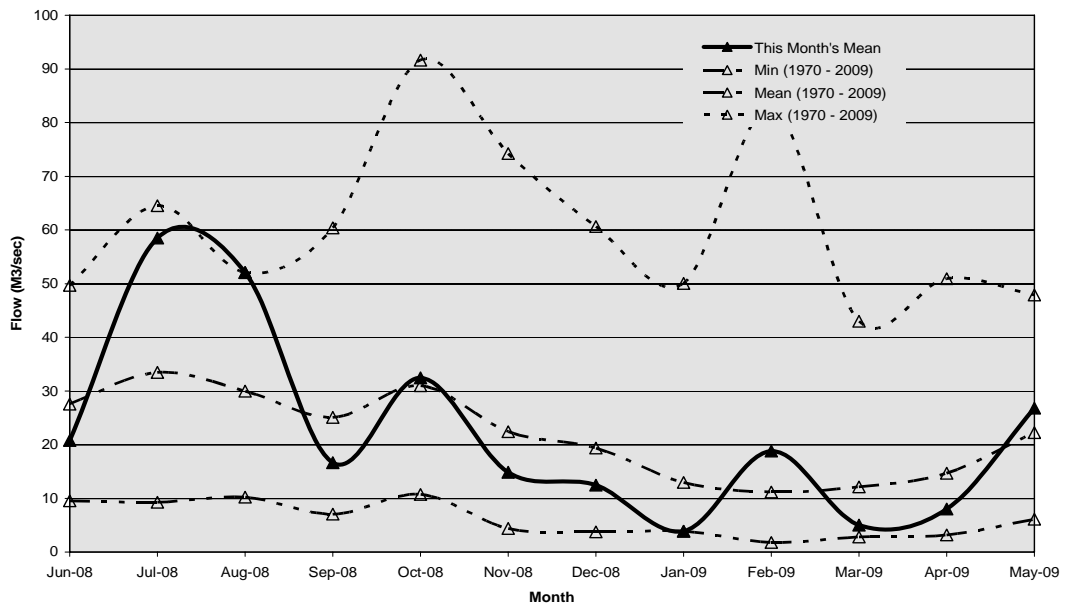
1. Supply situation

1.1 General

There were no significant issues with supply for the March period.

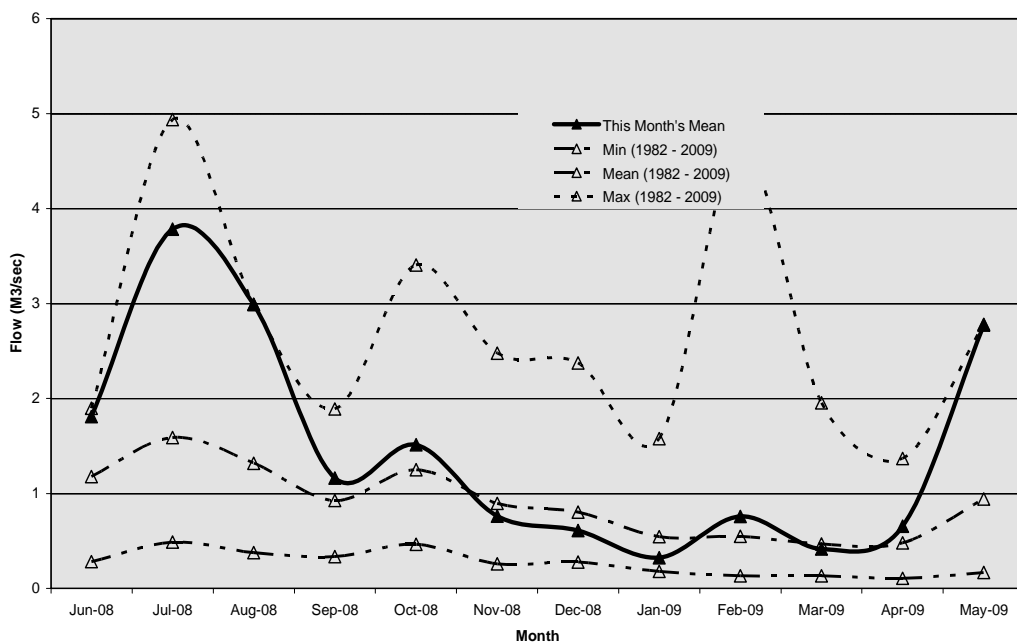
1.2 Hutt River flows

The mean flow for the Hutt River was below average during the period.



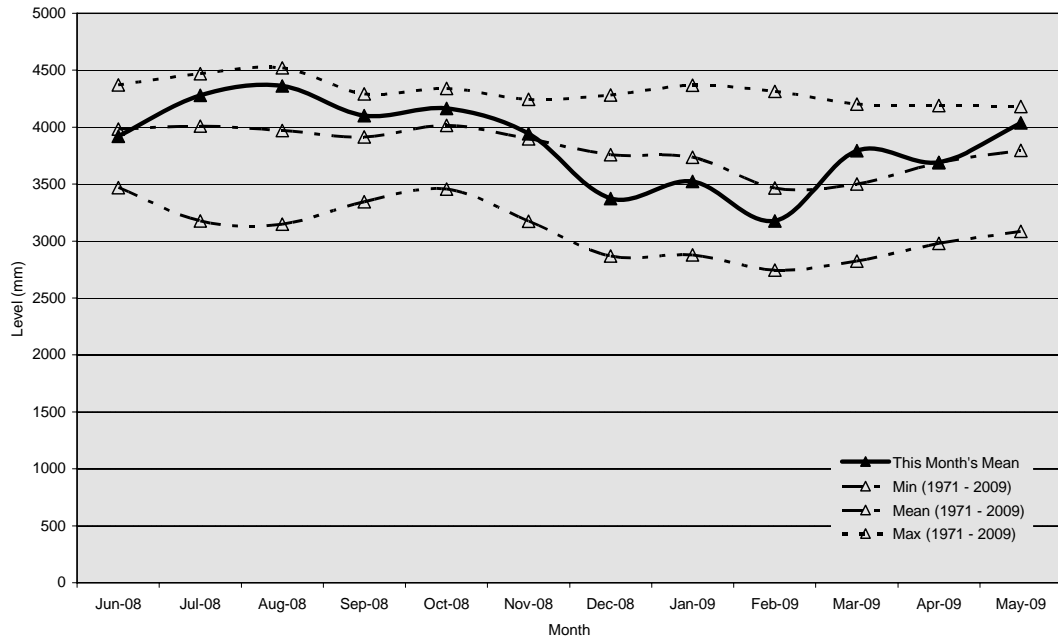
1.3 Wainuiomata River flows

During the period the mean flow in the Wainuiomata River was above average.



1.4 Aquifer levels

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



2. SAP asset management system

It has been another busy month for the SAP team. Workshops were held to demonstrate how workflows would work. We are moving to on-line purchasing and timesheets in June and training is planned for May.

The SAP project managers have changed the sequence of departmental implementation and our “go live” date has been put back to mid-September.

3. Public health risk management plans

All public health risk management plan workshops have been held and final drafting of the plans is under way.

4. Health and Safety - ACC

Preparation for the internal auditing of our health and safety management plan and procedures is complete. A temporary administration support person has been engaged to ensure we meet the divisional target of a fully implemented system by 30 June 2009.

5. Operations

One of the main power transformers at Waterloo Water Treatment Plant was replaced with a larger transformer to reduce the risk of overheating when on high load in summer.

The installation of a new underground diesel tank at Waterloo Water Treatment Plant is complete. This has doubled the time that the plant can operate without mains power from around 60 hours to 120 hours.

Diesel dispensing pumps have been installed at the three treatment plant sites to ensure fuel is available for vehicles in an emergency and also to help turn over the large volumes of the on-site storage.

6. Capital projects

The budgeted expenditure on the water supply capital works programme for the 2008/9 financial year is \$5,007,000. As at the end of May 2009 expenditure is at \$3,829,564 plus \$657,578 costs being committed.

The capitalisation process on a number of completed projects has now commenced.

No. of Projects	No. of projects completed	Budget \$	Forecast (excluding rebudgeted items)	Variance %
88	50	5,007,000	\$4,998,000	<0.2

7. Engineering

Since December 2008 we have been discussing with Capacity, at their request, the possibility of taking on some of their pipework replacement work. We have provided estimates and options for how the work would be managed. In early June we received advice from Capacity that our services will not be required.

Development and Strategy

Review of operations for the period ended 31 May 2009

1. Water supply strategy and development

1.1 Stuart Macaskill Lakes

A review of the seismic performance of the Stuart Macaskill Lakes has been completed using the seismic requirements of the 2008 dam safety regulations. The review has identified that movement of the Wellington Fault is likely to cause the lake embankments to settle and deform and the natural material lining to crack. Some sections of the embankments of each lake are predicted to be more affected. There is a risk that this movement and cracking will lead to a gradual and progressive deterioration of the embankments and a loss of water.

Whilst it should be possible to drain down the lakes after an event to a level at which leakage of water is minimal, any release of water would contravene the recent changes to the Building Act and dam safety legislation. In addition, draining down stored water following a major earthquake would mean the loss of a strategic water source at a time it was most needed.

The proposed project to raise the level of the lakes does not increase the risk of embankment deformation or cracking of the lining. However, a greater quantity of water may need to be drained down following a Wellington Fault movement. As a consequence, work to raise the lakes levels should proceed concurrent with actions to enhance the seismic security, and there is a cost benefit in doing so.

Several options have been identified to enhance the security of the lakes, from minimum action needed to fully comply with the new dam legislation, to comprehensive work that ensures full containment at a cost of about \$10 million. Since the analysis of the options will not be completed for a few months, funding for \$10 million over the next four years has been included in the LTCCP for the comprehensive seismic security enhancement option. Following completion of the option analysis, a report on the options and their costs will be provided to the Committee.

Since this is a low level of risk and only applicable to a movement of the Wellington Fault, no additional actions or precautions are seen as necessary prior to completing the seismic enhancement work. Our water supply customers and Regional Emergency Management have been advised.

1.2 Reduced low flow at Kaitoke weir

A workshop with all the major stakeholders was held on 20 May and responses to various concerns expressed about the draft application were discussed. This material will now be written up in the form of addendums to the various scientific reports and in a new report on flow related issues.

The work required for a resource consent application is expected to be concluded by the end of June 2009.

1.3 Central Business District (CBD) reservoir

Wellington's Mayor has met with the Prime Minister and raised the issue of funding for the proposed CBD reservoir. The Mayor was seeking a commitment from Government that funding for the hospital's share of the capital cost would be available from 2011 to allow planning for the reservoir to take place. Currently that commitment has not yet been confirmed.

1.4 Upper Hutt aquifer

A 12-month programme of *Cryptosporidium* testing of the aquifer water has been completed. This testing is required by the *Drinking-Water Standards for New Zealand* to determine the level of water treatment that would be required. No *Cryptosporidium* was detected in any of the 30 tests conducted. Irrespective of this, the Standards require removal of 99.9 percent of particles, which is the same standard that applies to our treatment plants at Te Marua and Wainuiomata.

The impact of various rates of extraction of water from the aquifer and their duration will be modelled over the next few months to identify the predicted impact on the Hutt River.

1.5 Economic benefits of Whakatikei dam

The analysis of reinstatement of the wholesale water supply following a Wellington Fault movement has been completed. The report provides separate estimated repair times for both the existing water supply network and on the assumption that a Whakatikei dam is in place. Modelling by GNS Science identified the probable locations where pipe breaks or leaks are likely to occur. The analysis shows that water supply to Wellington and Porirua Cities could be reinstated more quickly and in greater quantity with water supplied from a Whakatikei dam.

The Wellington Lifelines Group is preparing a paper describing the potential impact on people and commerce from the loss of lifeline services post earthquake. This information and the wholesale water reinstatement analysis will provide inputs to an economic analysis to quantify the social benefits of the Whakatikei dam in monetary terms.

The information on reinstatement times is to be shared with our customers and the GWRC Emergency Management Department. This information will also be useful input into a civil defence workshop on the National Initial Response Plan for Wellington in June.

2. Renewable energy

2.1 Wainuiomata mini-hydro power generation

Preliminary consultation on a proposed consent to discharge excess water into lower George Creek, just upstream of its confluence with the Wainuiomata River, is progressing with stakeholders. Fish and Game New Zealand, the Department of Conservation and iwi have been advised of the project.

Iwi have visited the site and provided a Cultural Impact Report, which is generally positive about the project. The Department of Conservation has also responded with a request for more information about the ecology and fish in George Creek.

2.2 Puketiro wind farm

Comments have been received from RES New Zealand Ltd on the draft replacement contract and these are being evaluated. Any comments found unacceptable or requiring further clarification will be referred back to RES. Those comments accepted will be incorporated into the draft contract.