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# **Water Supply and Parks**

## **August 2009**

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## Parks

### Review of operations for the period ended 31 August 2009

#### 1. Manager's comments

The advent of daylight saving has signalled the start of the busy season for Parks. Visitation in our network will steadily increase over the coming months as the public enjoy recreating during the longer evenings.

The officers are also proud to present the Committee a draft of the Parks Network Strategy for endorsement. With this strategy almost complete, we will now be turning our attention to reviewing the suite of parks management plans to ensure they deliver the strategy. Both these issues are addressed in Report Nos 09.625 and 09.626 to this Committee meeting.

Deliberations on submissions to the draft *Battle Hill Farm Forest Park Management Plan* were completed at the Regional Sustainability Committee on 3 September. The final draft of the plan has now been prepared and is to be considered at this Committee meeting. If approved, the plan will become operational following the full Council meeting in November 2009. Letters will then be sent to submitters informing them of the outcome of their recommendations.

There has been considerable interest shown by Councillors regarding the production of sustainable land management plans. As a result, we have invited Peter Hanford to present the recently completed sustainable land management plan for Battle Hill Farm Forest Park at this Committee's meeting in November.

At the last Committee meeting, Councillors asked whether "celery pine", that was recently discovered in East Harbour Regional Park, was a native or exotic tree. Celery pine or *Phyllocladus trichomanoides* is a New Zealand native.

#### 2. Policy and Planning

##### 2.1 Policy

Evaluation of the Kapiti Pony Club licence proposal for Queen Elizabeth Park is complete and details are in a separate report. Part of the land is still being recontoured with spoil from the railway line duplication between MacKays Crossing and Paraparaumu.

Officers have been dealing with a number of development proposals in the parks and forests.

- At Queen Elizabeth Park, the Tramways Museum has received approval from Greater Wellington Regional Council (GWRC) to extend their track. The work proposed will improve passenger safety, as a tight bend in the tracks will be eased.
- Officers have commented on the newly proposed concept plan for State Highway 1 on the Kapiti Coast, as there will be implications for the

northeastern section of Queen Elizabeth Park.

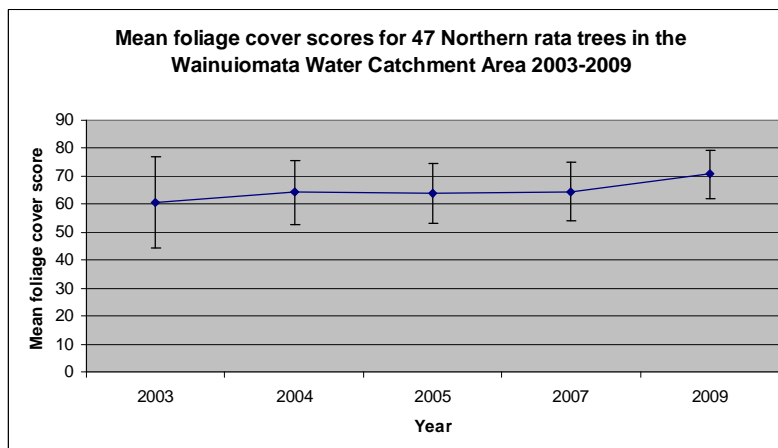
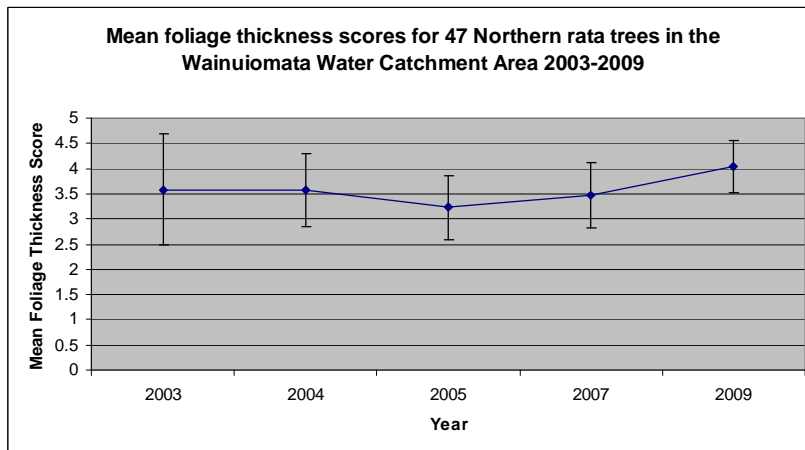
- Approval has been granted to telecommunications company Two Degrees Mobile for the lease of a cell phone tower site in Kaitoke Regional Park.
- Officers are currently considering the impacts on Pakuratahi Forest of a proposal to widen a corner of State Highway 2.

## 2.2 Environment

### 2.2.1 Monitoring

GWRC officers have been approached by the Department of Conservation (DoC) to support working a large-scale Forest Health study in the Tararua Ranges called *Project Kaka*. DoC has completed possum control in the Tararua Ranges over the past 20 years through a cyclic aerial 1080 possum control programme. DoC has recently reviewed this pest control programme and has decided to conduct a large-scale trial using robust monitoring techniques to show the benefits of 1080 control operations. DoC intends to control a 22,000 hectare area every three years and monitor the outcomes of that regime versus no possum control in other areas. By working with GWRC in the Hutt Water Collection Area, the outcomes of the GWRC regime of five to six yearly possum control operations will also be assessed.

An analysis of the condition of rata trees monitored in the Wainuiomata Catchment shows some improvement over time in the condition of these trees. Rata foliage is very palatable to possums, so it is good to see that the possum control programme is helping to maintain or improve the health of these trees.



Rodent tracking was measured in the Hutt Water Collection Area prior to and following the 1080 operation. Rat levels fell from 55 percent (pre-operation) to 1 percent (post-operation) tracking.

In Korokoro Valley, the ongoing pest control operation is starting to show good outcomes. Recent rodent monitoring undertaken by the Korokoro Environmental Group showed rats to be tracking at 2 percent, down from the last monitor (28 percent).

### 2.2.2 Pest control

Possum monitoring completed recently in the Hutt Water Collection Area, Kaitoke West and Akatarawa Saddle, has shown the success of the 1080 possum control operation. The result was 0 percent residual trap catch (RTC) in the Hutt Catchment and Kaitoke Regional Park and 1 percent RTC in Akatarawa Saddle. The water take for the public water supply was restarted on 4 September, following the “all clear” given by the Medical Officer of Health, as a result of the bait breakdown.

Heavy rainfall events resulted in the need for officers to check the rivers and beaches twice during September. Eleven possums were found in total, as well as three pigs. Testing of the carcasses showed that only four of those possums and one pig contained 1080. Signs have been placed along the Hutt River and on the Petone and Eastbourne Beaches warning dog owners of the risks to their pets if they are allowed to roam. These signs will stay in place until the carcasses being monitored in the operational area are no longer toxic.

Two goat control operations have been completed during September, one in the Maungakotukutuku area of Akatarawa Forest (27 goats culled) and the other in the northern section of Pakuratahi Forest (22 goats and 1 pig removed).

The “weed team” has been working on the control of boneseed beyond Burdan’s Gate. The work is undertaken to halt the spread of this weed towards the Parangarahu block. Seedlings were found further afield than in previous years. The team has also checked for boneseed seedlings in Queen Elizabeth Park. September is the best time to control this weed, as the bright yellow flowers make any plants conspicuous.

### 2.2.3 Wainuiomata Mainland Island

One of the kiwi from the Rimutaka Forest Trust “kiwi area’ has moved into the water collection area near George Creek (not far from the Mainland Island) and has started incubating an egg. This kiwi was recently named “Solomon” in a competition held within the Water Supply, Parks and Forests Division.

New hinau fruitfall plots have been established inside and outside the Mainland Island to better reflect the habitats within these areas. There were no hinau fruit damaged by possums either inside or outside the intensively controlled area but damage to 2 percent of the fruit was recorded inside and to 20 percent of the fruit outside the Mainland Island.

The major two-monthly bait fill of the Mainland Island was completed in September.

The rodent monitoring completed in August showed rats had increased in the Mainland Island (up to 20 percent from 14 percent in May) but those numbers are expected to fall by the November monitor. Outside high rat numbers continue to be recorded in the non-treatment site (95 percent). Interestingly insect tracking is significantly higher in the Mainland Island - 40 percent, as compared to 9 percent outside. This shows that the rat control is having a beneficial effect on the invertebrate populations.

### **3. Western sector**

A Southern Right Whale was confirmed sighted off Whareroa Beach at Queen Elizabeth Park. This rare sight was enjoyed by visitors to the park - one sight that hopefully will become more common as these animals return to the coastal sea around the Wellington Region. To read the article, go to the link <http://www.stuff.co.nz/dominion-post/news/wellington/2776782/I-stood-on-a-whale>

The whitebaiting season has returned, with patient fishers taking up sites at stream mouths at Queen Elizabeth Park and the Hutt River. Our Rangers monitor their activities and liaise directly with the Department of Conservation over incidents that occur. Whitebaiters competing for sites and disagreements about fishing methods have been encountered. Reports so far are that whitebait catches are very slim. It is satisfying that the work GWRC is doing to protect stream margins at parks (such as Queen Elizabeth Park), will provide improved habitat for adult whitebait in future. In the long run this should prove beneficial to whitebait numbers in streams such as the Whareroa and Wainui streams at Queen Elizabeth Park.

Progress continues on the upgrade of the water supply at Queen Elizabeth Park. We have a new bore in place and filtration systems need installing to complete the upgrade.

At Queen Elizabeth Park we have started consultation with New Zealand Transport Agency about the proposed roading upgrade through Kapiti that has the potential to impact the northern part of Queen Elizabeth Park at the Poplar Avenue and State Highway 1 intersection.

Both Battle Hill Farm Forest Park and Belmont Regional Park have restrictions in place because of the lambing season. Staff report that there is good compliance from the public generally with the restrictions in place. One person complained about the lack of signage at Belmont Regional Park. This was responded to. Some minor improvements in our future signage will address this issue.

Activities over the period included end of season plantings by various school and community groups at Queen Elizabeth Park and Belmont Regional Parks.

Ranger staff attended various meetings including the Friends of Queen Elizabeth Park Annual General Meeting and meeting with Kapiti Coast

District Council about the cycleway proposal that affects Queen Elizabeth Park. Ranger staff engaged with a wide variety of community interest groups over issues to do with our regional parks. At Belmont Regional Park local groups are concerned over wild pigs in the Kelson/Hill Roads and Belmont suburbs encroaching from Speedys Reserve. We will work with our Biosecurity Department to help resolve this issue.

Events included a trail run held at the Stratton Street entrance of Belmont Regional Park and equestrian events and harrier event held at Queen Elizabeth Park.

The Park Ranger, Battle Hill Farm Forest Park helped facilitate a cleanup of the Paekakariki Hill Road. This was run by Keep Porirua Beautiful as part of Clean Up New Zealand week. Volunteers were based at Battle Hill Farm Forest Park and collected a small mountain of rubbish, which was recycled where possible. This is a good example of local communities and agencies working together for a positive outcome.

#### **4. Eastern sector**

Tunnel Gully is currently being used for a school environmental education project that involved busloads of pupils. This is a very worthwhile and rewarding project for both the school children and GWRC staff. Meanwhile our Park Ranger, East Harbour Regional Park was involved with a careers advisory day in which 10 students from Heretaunga School took part.

Events in the Akatarawa Forest are beginning to increase with seven 4WD events, one army training event and three motorcycle events taking place during this period. Of course, this is expected to increase with the warmer weather coming up.

There were approximately 200 participants at a recent Kapi Mana Enduro event, ranging from young children to the more dedicated adult motor-cross enthusiasts. The bikes range from 2, 3 and 4 wheeled motorcycles. This event went well with no problems and everyone went away happy.

In Kaitoke Regional Park, film company *Sauce*, spent two days filming an interpretation film for Zealandia Wildlife Sanctuary, while more than 130 students from Plateau School were involved in potting seedlings for the park. A group from Maidstone School planted 700 native seedlings in a restoration site near the Te Marua Water Treatment Plant.

East Harbour's *Nighttime Madness* event took place during August with 360 participants.

Wainuiomata Water Collection Area walking tours have now been advertised in the latest issue of *Our Region* and the October tour is already fully booked.

Because of excessive call-outs by motorists still in the park after the gates have been locked at Tunnel Gully, we have trialled closing the gates one hour after dusk. This appears to have worked extremely well, with no call-outs for the Park Ranger to unlock the gate being made at all during August!

The new stoat trapping track from the Old Whakanui in the Wainuiomata Recreation Area down Solomon's Track and finishing adjacent to the water treatment plant has been completed. This track will be trapped by Rimutaka Forest Park volunteers working with the kiwi programme and the traps are supplied by the Department of Conservation.

The campground areas at Kaitoke Regional Park are being weeded, bark mulched and several gardens bollarded off in preparation for a busy summer period. Weed trimming and mowing has also been completed in Wainuiomata.

Preparation work has begun for the replacement bridge on Mackenzie Road Track in East Harbour Regional Park, which was recently destroyed by a tree fall during July. In the meantime the tree has been cleared, the site made safe and reopened. New formation work on the Mackenzie Track has now been completed. This will be metalled with the aid of a helicopter in mid-October.





Boneseed



Celery pines



Kapi Mana Enduro event



Steiner School planting



Wainui Stream planting



Trail run at Stratton Street, Belmont Regional Park



Trail run at Stratton Street, Belmont Regional Park



## **Marketing and Design**

### **Review of operations for the period ended 31 August 2009**

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

Both the Water Supply and Parks' Annual Reports were approved for publication and distribution at the Council meeting on 29 September. These arrangements were being finalised at the time of writing and the reports will be despatched shortly.

#### **2. Water Supply**

##### **2.1 Water use trends**

The following graph shows a gradually decreasing trend in average daily water supply per head of resident population for the winter period June to August. The change between 2000 and 2009 is 8 percent while that between 2002 and 2009 is 10 percent. Water supply during the winter of 2006 was affected by a major leak in Wellington, which was active during the whole three-month period. It is assumed that garden watering during winter is negligible regardless of variations in winter rainfall between years. Therefore, we can largely exclude climate - a major factor in variations in annual water supply - as a factor behind the "winter" water use, as shown in figure 3 on page 12.

##### **2.2 Water conservation**

Planning continues for the spring mulch and summer water conservation campaigns.

Twelve garden centre retailers around the region have confirmed their involvement and special offers for the mulch campaign. The creative material will be reused this year, as it seems to have been very effective in getting the "mulch" message across to gardeners.

We are investigating the options available to encourage people to purchase (and use) water-wise gardening equipment over the summer and intend altering the creative material to reflect that type of message.

We will continue to reinforce awareness of summer water restrictions through advertising on behalf of the city councils in December, and in January and February if required.

##### **2.3 Treatment plant visits**

A group of around 20 Weltec students visited all three water treatment plants during the period.

#### **3. Parks**

##### **Promotional material**

The Belmont Regional Park brochure is being updated and will be reprinted shortly. Our selection of A1 parks posters that is frequently used for displays is also being refreshed to ensure the information and imagery is up to date.

## **4. Events**

### **4.1 Community and corporate planting days**

A second Honda planting day was held at the Wainuiomata Lower Dam on Saturday, 19 October. Several staff from the Lower Hutt dealership helped a number of GWRC staff and family members to plant around 500 native trees. As the area is still not open to the public, our opportunities to promote events for general participation are limited. However, it was a worthwhile exercise that demonstrated the potential for this area to be a popular recreation and environmental education site in the future.

Community and corporate support for Queen Elizabeth Park was on show at the last planting day of the season on Saturday, 26 September. Around 70 adults plus lots of kids helped plant around 1,500 trees and shrubs in just over an hour at the park's bush remnant. NEC provided great assistance and a barbecue at the end, while the help from Nga Uruora, Raumati South Residents' Association and Guardians of Whareroa was also much appreciated.

### **4.2 Buggy walks**

The September event at Zealandia (the Karori Sanctuary) attracted 180 parents, children and others, on a much improved "weather day" than last year. And a grand total of just over 700 attended the annual "feature" Buggy Walk at the Botanic Gardens on 1 October. Many of the participants received GW water sipper bottles (filled with fresh Wellington water), a promotional item that helps reinforce awareness of our involvement with the Buggy Walk series. Judging by these attendance figures (and word of mouth), the website [www.buggywalk.co.nz](http://www.buggywalk.co.nz) and associated emails continue to prove very effective low-cost promotional media for this walking series.

### **4.3 Great Outdoors summer events 2010**

As planning continues for the summer, we are taking the opportunity to inject some more "energy" into our events programme with a new name. As in previous years a temporary Booking Officer will be approved to manage calls and bookings for events over the summer.

### **4.3 Seniors' expo**

GWRC Parks provided material for the Seniors' Expo held at the Town Hall on Thursday, 1 October. Given the popularity of the SuperGold card, we created some publicity material to further encourage people to take public transport to the regional parks. Posters and brochures were displayed at the event, which was well attended, with plenty of interest shown in the information provided.

New Zealand Bus has offered us display space for the A3 versions of the *Take public transport to regional parks* posters in their buses in January 2010, which we have been very pleased to accept.

## **5. Wellington Region Recreation Initiatives Group (WRRIG)**

Since forwarding our Expression of Interest in Active Communities funding to SPARC, the WRRIG received feedback that it was not likely to be successful

and has decided not to continue pursuing the application. The main comments were that it was too broad, big and wide ranging; Region wide initiatives were unlikely to be supported and that they wanted a focus on smaller more defined communities and specific measurable outcomes.

While this is disappointing, we continue to foster relationships with the territorial authorities and explore ways in which we can support their efforts to build links with local communities and evolve parks and recreation experiences so that they cater for as many people as possible in local communities.

## **6. Community Liaison**

### **6.1 Friends of Belmont Regional Park**

Planning is continuing to restore a site at Hill Road, and for their involvement in several events as part of the Great Outdoors summer programme.

### **6.2 Friends of Queen Elizabeth Park**

The southern section of the park's recreational cycleway was marked out so that visitors can start to experience the opportunities that will be available once the plan is fully implemented. Representatives of the Friends attended a meeting with the Kapiti Coast District Council mayor and staff from both Kapiti Coast District Council and Porirua City Council to examine opportunities to apply for National Cycleway funding.

### **6.3 Hutt River Trail operations liaison**

The quarterly meeting of the group was held in September, at which there was much discussion with Flood Protection on development of the Boulcott reach and the implications for recreation and community users. A further meeting will be held in early October to discuss proposals for public access and landscape treatment of the area.

The Rotary Clubs of the Hutt Valley have designed a prototype seat for the Trail, using gabion baskets with a wooden seat (using sustainably-harvested timber). Commitments have already been received from club members to purchase 10 seats (at a cost of around \$1,000 each installed).

## **7. Staff**

Parks staff were saddened to hear of the passing of Barry Chalmers, the foundation manager of Wellington Regional Council's regional parks network. Barry held the role for 11 years, after which he set up his own consultancy, *Parks and Open Spaces Ltd.* Staff will be planting a small totara grove in his memory at the Celebrate Life site in Kaitoke Regional Park on Saturday, 10 October.

## **8. Water usage**

Charts detailing water sales for the year are on page 12.

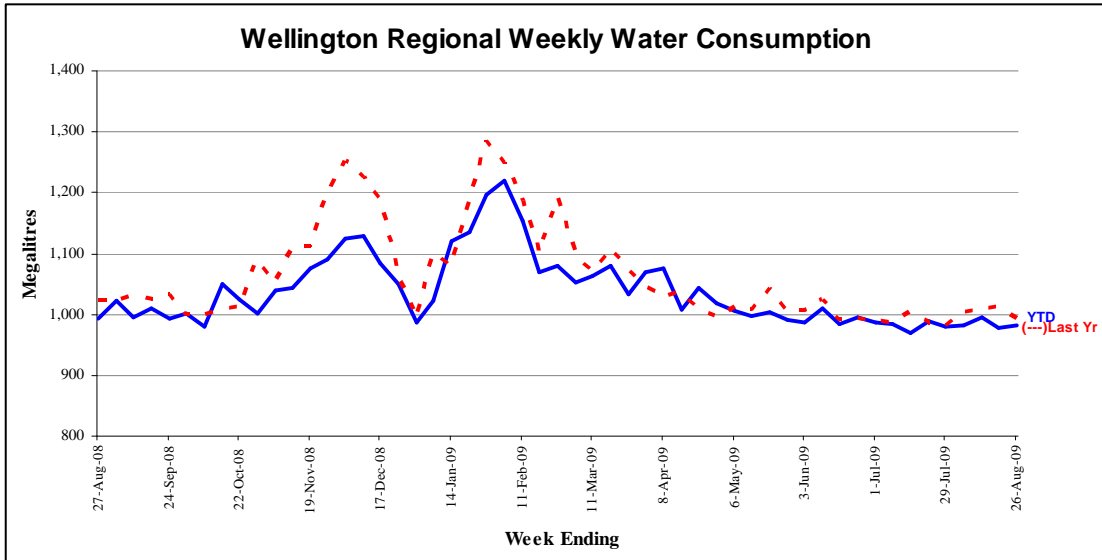


Figure 1 - Water sold over the last 12 months

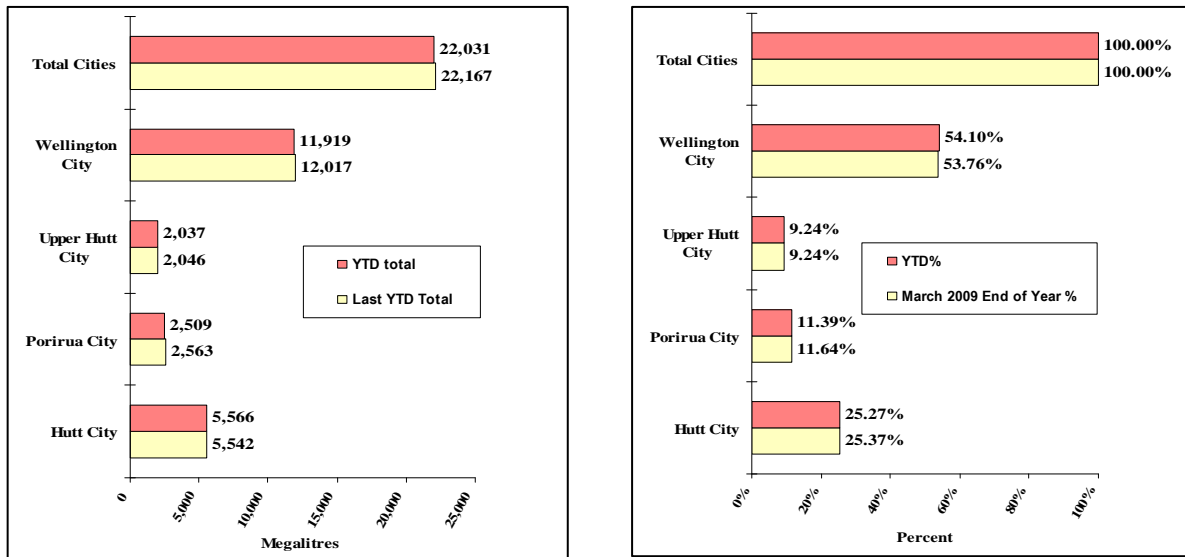


Figure 2 - Water sold during the metering year to date [April 2009 to August 2009]

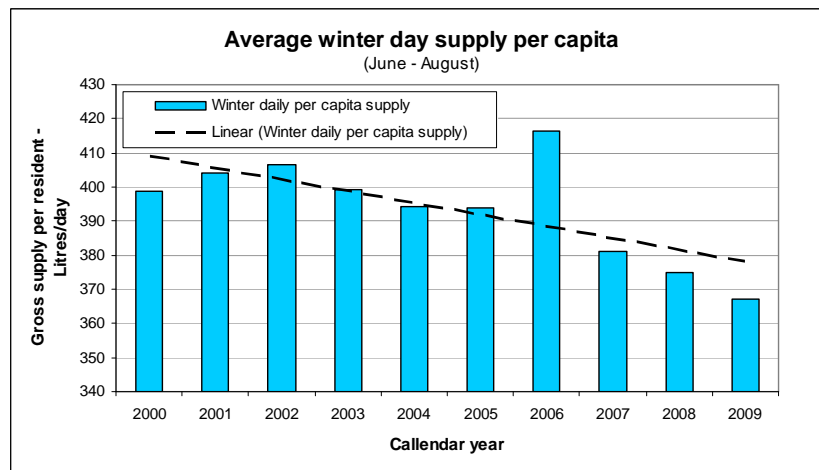


Figure 3

# Water Supply

## Review of operations for the period ended 31 August 2009

### 1. Supply situation

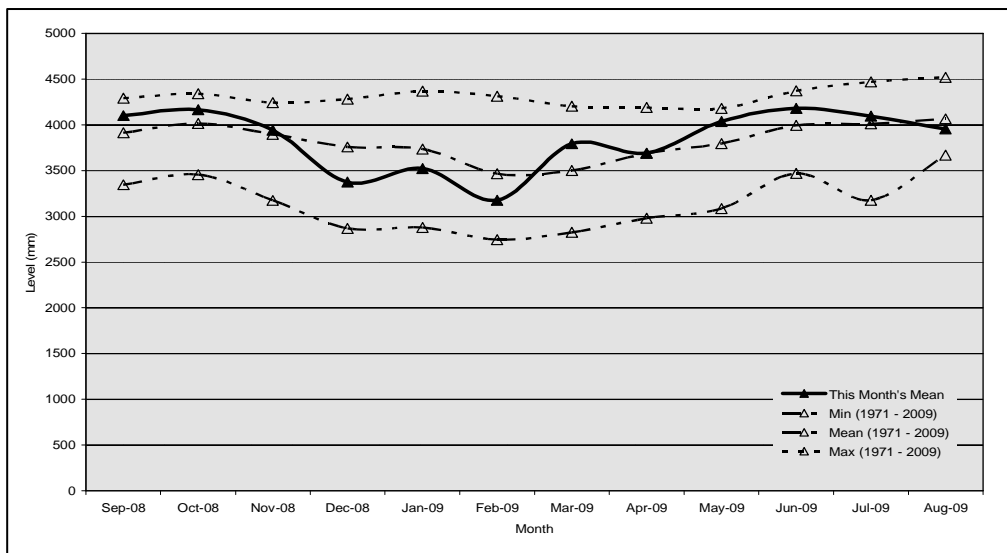
#### 1.1 General

The Te Marua Water Treatment Plant was operating on lakes source between 7 August and 4 September following a 1080 drop in the Hutt Catchment.

Lake storage volume had recovered to 70 percent by the beginning of October.

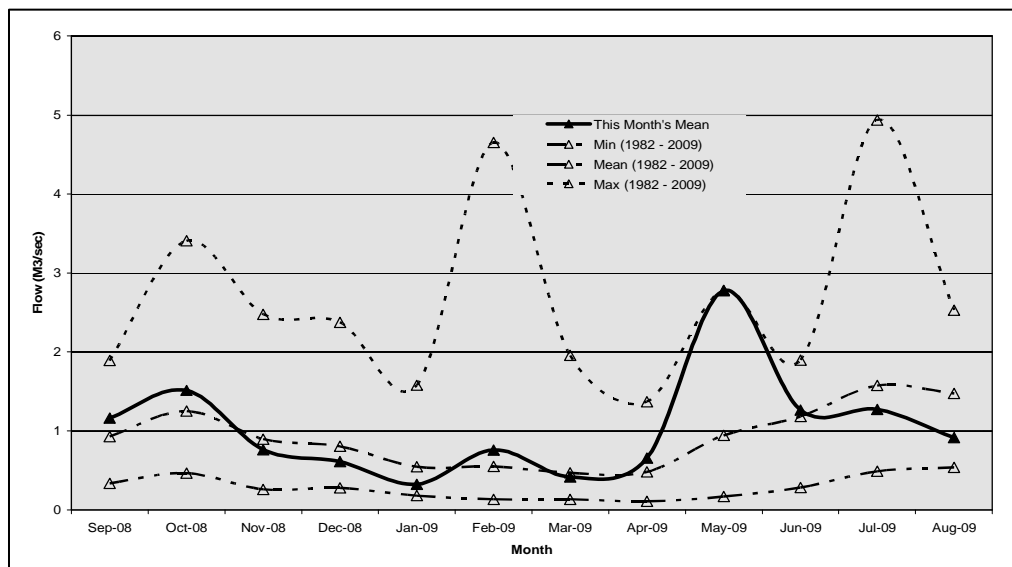
#### 1.2 Hutt River flows measured at Birchville

During the period the mean flow for the Hutt River at Birchville was about the mean.



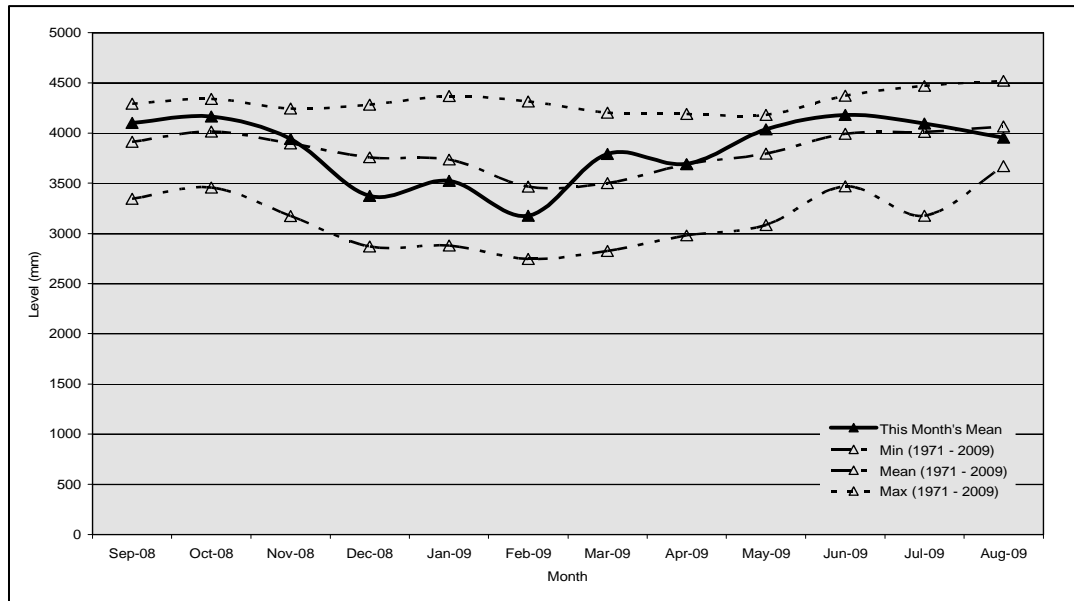
#### 1.3 Wainuiomata River flows measured at Manuka Track

The mean flow in the Wainuiomata River at Manuka Track was below the mean during the period.



## 2.4 Aquifer levels measured at McEwan Park

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



## 2. Pipe break at Motuhara Road, Plimmerton

Heavy rain contributed to a coupling failure on the bulk main to Plimmerton No.2 Reservoir on 31 August. The resulting leak caused the undermining of a section of Motuhara Road and washed away a section of steep bank close to Plimmerton School. The water main has been repaired and application for consent to repair the bank and road are under way.

## 3. SAP plant maintenance

The Water Supply Department switched from the old Hansen computerised maintenance management system to the SAP system on 21 September. The first week on the new system raised a number of business process issues that had to be resolved but these were easily dealt with by the Assets and Compliance Team.

## 4. Maintenance work for Capacity

The Water Supply Pipelines Team carried out an inspection of the Wellington City Council owned section of the 800 mm main feeding Macalister Park Reservoir. A full report with immediate and future maintenance recommendations has been prepared.



## **Development and Strategy**

### **Review of operations for the period ended 31 August 2009**

#### **1 Water supply strategy and development**

Evaluation of the options to improve the performance of the Stuart Macaskill Lakes in a Wellington Fault earthquake has been completed and is the subject of a separate report to the Committee.

The evaluation has taken into account an assessment of the probability of landslips from the hillsides above and upstream of the Kaitoke weir provided by Tonkin and Taylor Ltd, and their expected impact on the intake weir and water quality in the Hutt River. The stability of the intake tunnels and reticulation to Te Marua was also considered, as was the water consumption rate because of limited reticulation capability following the earthquake and the timing of repairs.

#### **2. Reduced low flow at Kaitoke weir**

Additional information is being gathered and modifications are being made to the documents for an application to change the water take resource consent conditions at Kaitoke following internal review by GWRC Environment Management Division staff.

An updated draft application will be completed by mid-October. A decision will then be made by senior management on submission of the application for consent condition changes.

#### **3. Economic benefits of Whakatikei dam**

The final report for stage 1 of the economic impact assessment has been completed by Business and Economic Research Ltd (BERL). The report provides a framework for assessing the cost to business through loss of utilities caused by a major earthquake; in this case a Wellington Fault quake.

Stage 2 of the study is under way and planned for completion in October. The second stage will analyse the economic impact resulting from loss of the water supply and the reduction in economic impact resulting from construction of the Whakatikei Dam.

The assessment framework provided in the stage 1 report will be of value to other Wellington Lifeline utilities wishing to evaluate the impact of their earthquake mitigation measures. It is planned to make the framework available to these utilities through the Wellington Lifelines Group.

Funding from Foundation for Research, Science and Technology (FRST) and GNS Science has been confirmed for a study on the community impacts and implications of a major earthquake. The work will be carried out by GNS Science. This report is expected to provide information that could help in determining the social benefit of the dam.

#### **4. Proposed CBD Reservoir**

The Mayor of Wellington City, Kerry Prendergast, met with the Prime Minister in June this year and raised the issue of funding for the proposed CBD reservoir. Subsequently the Mayor also raised the issue with The Hon. Peter Dunne as MP for Ohariu, who made representations to The Hon. Tony Ryall, the Minister of Health.

As a result of those representations, a letter was received in September from The Hon. Tony Ryall. The letter identifies that the Capital and Coast District Health Board (CCDHB) is unable to commit to joint funding for the CBD reservoir but would consider funding the dedicated pipe from the reservoir to the hospital site.

We plan to meet with Wellington City Council during October to consider what impact the lack of funding commitment from CCDHB may have on the project.

#### **5. Wainuiomata mini-hydro power generation**

SKM consultants have been commissioned to design and manage the construction of the generator building and outlet water tank. Their first task is to evaluate design options and provide a preliminary estimate of construction cost by mid-October for inclusion in the draft 2010/11 Annual Plan. Documentation for procurement of the generator by MWH New Zealand Ltd is programmed for completion early October, which will allow tenders for the equipment to close prior to Christmas.

The application for resource consents to discharge water from the generator into George Creek when not required for water supply, and for construction of a discharge structure, is being finalised. For certainty, these consents are needed before placing an order for the generator. Because of the long lead time for supply of the generator, our target is to place an order by the end of January.

#### **6. Puketiro wind farm**

Discussion on the replacement Contract is continuing with RES NZ Ltd, with only a few minor issues now remaining to be finalised. The replacement Contract Document contains all the changes needed to fully comply with Council's resolutions related to Battle Hill and the development site, together with the main road access to the wind farm via private property.

It is expected that the contract will be ready for execution during October or November 2009.