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# Water Supply and Parks

July 2009

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## Parks

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

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

A lot of the department's focus this month has been spent on preparing background material for the 19 August Councillor workshop on the Parks Network Strategy. This material (incorporating information about the park values, surveys and future trends) was supplied to Councillors on 7 August. Officers will be presenting feedback gathered at the workshop to Councillors at this Committee meeting for confirmation prior to preparing the draft strategy. The draft strategy should be completed in time for consideration by this Committee at its 15 October meeting.

The other highlight of the period was Park Rangers from East Harbour and Kaitoke Regional Parks hosting our second *World Ranger Day* celebrations on 31 July, with students from various colleges in the Region. The weather this year was far better than last year and the students seemed to enjoy their day in the life of a Park Ranger.

Lambing is approaching at both Battle Hill and Belmont, which coincides with the quieter visitor season. Ranger staff have organised areas to be closed and public notices placed in local newspapers to give plenty of notice to park users of the temporary closures of part of our parks.

We finalised an agreement for fill to be placed at the Poplar Avenue site in Queen Elizabeth Park, which will result in improved grazing paddocks for the proposed Kapiti Pony Club occupation of the site. Officers intend to finalise issues to do with the proposed lease and present that to this Committee at its 15 October meeting.

We are progressing with the Battle Hill Sustainable Land Management Plan. It has reached a draft stage and will be finalised by September. This plan is a forerunner of plans proposed for all our Western Sector parks where farming is an activity. We are currently prioritising which park we complete next in the process. Peter Handford, who has been engaged to carry out the work, is able to present the findings of the Battle Hill plan at a Council meeting later this year.

#### **Hutt 1080 operation**

The Hutt Water Collection Area, Kaitoke West and Akatarawa Saddle 1080 possum control operation was completed on 7 August. Weather conditions were ideal, as was the timing following the application of the feed bait on 26 July (the feed bait is most effective when applied one to two weeks before the toxic bait). Biosecurity officers will now monitor the bait and carcass breakdown. A plan is in place to check the Hutt River if heavy rainfall occurs that could wash possum carcasses out of the operational area. Water take from the river for water supply purposes will not restart until the Medical Officer of Health has given the all-clear.

On an associated matter, at present, any member of the public can apply for a

permit to trap possums on Council managed land. As there may be advantages in terms of pest eradication and economic benefits derived from possum recovery, Parks will advertise this information 12 months prior to future 1080 operations to increase awareness of this opportunity amongst fur recovery operators.

## **2. Policy and Planning**

### **2.1 Policy**

Comments have been provided to the Historic Places Trust on a conservation plan for the Pencarrow Lighthouse, while the effects on the regional parks of changes to the Hutt City District Plan in relation to temporary activities and filming have been evaluated.

### **2.2 Environment**

#### **2.2.1 Monitoring**

Two new specie discoveries have been made in the parks and forests recently. In the northern forest of East Harbour Regional Park a member of the “weed team” noticed an unfamiliar tree species and sent a sample off for identification. Landcare Research has kept that sample as a specimen (*Phyllocladus trichomanoides* or celery pine), as there have been no previous recordings of this tree growing naturally in the lower North Island. It is possible that it was planted (it is over 3 m tall) but there are also seedlings growing nearby.

The second discovery is very significant. It is the first recording in the country (and the world) of the native snail species, which was found in Wainuiomata Catchment by Parks Environmental Technician, Owen Spearpoint. It has been identified by scientists as an *Allodiscus* species (see picture on page 7). These litter dwelling snails feed on decaying plant and animal material.

#### **2.2.2 Pest control**

There appears to be a plague of rats in East Harbour mainland island. Recent rodent monitoring showed an increase in rat tracking from 34 percent in May to 44 percent in August and nearly half the bait stations were found empty during the bait fill completed in July. Outside the mainland island area, rats are tracking at 70 percent. Extra bait will be put out in the mainland island in August to try to lower the rat numbers.

#### **2.2.3 Wainuiomata Mainland Island**

The monthly bait fill and trap check on the boundaries of the Mainland Island was completed. A new operational plan has been developed for the coming year.

## **3. Western sector**

The water supply at Queen Elizabeth Park continues to demand much of our attention, with the bore pump failing and needing to be replaced. This was not good news considering the pump had failed in the previous 12 month period. We have taken action to speed up the process to improve the water supply at

Queen Elizabeth Park by commissioning a new bore to be drilled and decommissioning the present chlorine treatment plant. The chlorine treatment was having adverse effects on the pump operation. Decommissioning the plant will result in significant cost savings to GWRC. Installation of ultra violet filters as an alternative to the chlorine treatment is proposed as part of the new bore supply. Connecting onto the mains reticulation at Raumati still remains a viable longer-term option for the park now that consent for this to occur has been given by Kapiti Coast District Council.

Parks' maintenance staff members have been planning maintenance work on our tracks, particularly sections of track in the lower Korokoro Stream at Belmont Regional Park. We intend to focus our parks' maintenance team on these tracks over the coming summer period.

At Queen Elizabeth Park a tender has been accepted for the Parks' mowing contract. We now intend to invite tenders for the mowing of sections of Belmont Regional Park (Dry Creek, Oakleigh Street and Stratton Street entrances) to consolidate maintenance of these areas and seek competitive pricing.

The Tramways Museum has partially completed a new visitor building permitted as part of their licence to operate in the park. We had to warn the Tramways Museum about some unauthorised work they were carrying out near the terminus of the tramline at Whareroa Beach. One of their employees had allowed fill to be dumped for extension of their tracks. This work was noted by ranging staff and immediately stopped.

Vandalism, rubbish dumping and graffiti continues to be reported and has been particularly notable at Belmont Regional Park this period, with toilets smashed at Oakleigh Street. Staff members are to be commended for their ability to deal with these unsavoury aspects of our parks.

On a positive note, various planting events have been held at all our parks over the period, including at Stratton Street, Belmont Regional Park, involving Friends of Belmont Regional Park. This planting is to extend riparian protection to the upper Korokoro Stream area. Other events our staff either facilitated or assisted with included plantings along the Hutt River and at Queen Elizabeth Park.

July saw a reshuffle of staff as Nikki La Monica returned from maternity leave to her role as Park Ranger, Queen Elizabeth Park. Dean Scott has returned to his role as Mobile Ranger, Western Sector, after filling Nikki's shoes for the last six months.

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

The colder weather has meant a decrease in the number of users in the Akatarawa Forest, with only nine 4WD events taking place during this period. However, groups are still active in the parks. In Kaitoke Regional Park 20 volunteers took part in a corporate planting event at the Stuart Macaskill Lakes lookout, while the Wellington Tramping and Mountaineering Club members enjoyed a guided walk in the Wainuiomata Catchment during July.

Typical winter weather during July resulted in damage occurring in the parks. A large rock fall above the weir track in Kaitoke Regional Park forced the closure of this track to the public and any contractors or staff who need access to the area must first contact the Park Ranger. We will reassess the risk in a month. A large slip also occurred in Akatarawa Forest and, following negotiations with Transpower's representatives, United Gooder, we have completed work clearing this area on a shared cost basis. A 7 m walking bridge on Mackenzie Track in Butterfly Creek Valley suffered major structural damage following the fall of a large beech tree. The tree has since been cleared, the site made safe and the track reopened via a creek crossing. Preparation work is under way to replace the bridge.

Radio technicians from Tait Mobile tramped into the Wainuiomata repeater site with officers to carry out a general service check on the park's repeater. The repeater aerial was found to be down on signal strength and we have been advised to have the aerial changed.

Vandals continue to play a part in some of our parks, with 15 m of fencing driven into and smashed at Te Marua. This has since been repaired. Tunnel Gully users continue to struggle with the signage that indicates we lock the gate at dusk. Our Park Ranger receives numerous call-outs after hours to go and release them. This increase is because we are now heading into spring/summer and people are enjoying being out in the evenings. We are looking to change locking time from dusk to one hour after dusk in an effort to address this issue.

Pest control continues throughout all areas. Bait stations around Kaitoke facility buildings have been refilled, our Wainuiomata Park Ranger assisted with the Mainland Island bait fill, and our East Harbour Park Ranger assisted with refilling possum lines early in July. In Pakuratahi two goats were shot and recreational hunters have accounted for good numbers of pigs in the forest. Several animals have also been recovered by the public from Akatarawa Forest and six pigs were also killed in the East Harbour Regional Park northern block.

In mid-July excessive tagging took place at the Wainuiomata front kiosk and road. Police were notified but could not help. An article was placed in the local newspaper to try and bring the offence to the attention of the public.

In an effort to prevent neighbouring stock from accessing the Lakes Block in East Harbour Regional Park, sheep and cattle stops have been installed on the wetland boardwalks in this lakes area.

A tidy-up of the area around the small facility building in Kaitoke Campground has been completed, with nova light installed in the roof and new concrete pads and planter boxes constructed. This has resulted in a much drier, more appealing and modern looking facility.

Our maintenance crew has water blasted the Flume Bridge and Bridge Road Track Bridge in Kaitoke Regional Park, restoring the structures to almost new condition again. They were last water blasted in 2004.

The asphalt “rotor milling” of the Tunnel Gully access road carried out recently remains in good condition. A few minor potholes have been addressed but overall this method of road sealing appears to have been effective and financially prudent. As a result, we are looking at the possibility of treating the entrance to the Rimutaka Incline in a similar way. A representative from the Historic Places Trust has been to view the works, as well as our repairs to the Mangaroa Tunnel, and has no concerns with our plans for the Incline.



Below - Students are shown around Katioke Regional park by Steve Edwards and Hoane Whitehead as part of World Ranger Day.



# Marketing and Design

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

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

The Parks Network Strategy entailed a significant amount of time in assembling material for Councillors to consider, then preparing presentations for the discussions on 19 August. That session has given some direction for the project team to develop the first draft of the Parks Network Strategy for the October Committee meeting.

Writing and editing the Annual Reports for Water Supply and Parks has been a significant focus for the period, to ensure they are ready for the Council meeting on 29 September.

### 2. **Water Supply**

#### 1.1 **Water conservation**

Planning is under way for the spring mulch and summer water conservation campaigns. The mulch campaign is planned to run during November, as was the case last year, and we will be reusing the existing creative material as that has appeared to generate good results over the last two years.

#### 1.2 **Treatment plant visits**

The risk of staff contracting swine flu from the public is now considered low and the ban on group visits to water treatment plants has been lifted.

### 3. **Parks**

#### **Signs**

Concepts are coming along well for the Queen Elizabeth Park geology trail. This is to feature a relatively large panel at the start of the trail near the Ranger's office, then 10 smaller "factoids" placed at various points along the trail. The idea will be that people can take on as much or as little information they would like to in easily digested "stories" at each point. We are aiming to have graphic design completed by mid-September for installation of the signs in late October ready for the summer.

### 4. **Events**

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

Around 700 trees were planted in the first *Green Footprint* planting day on 11 August at Queen Elizabeth Park's Whareroa Stream. The young team of staff from YHA Wellington City were very pleased to find the digging easy on the banks of the stream and the trees were planted in a few hours. The planting was followed by a guided visit to the bush remnant and then the customary barbecue lunch.

Community planting days are taking place every second weekend in one of the regional parks. Two of the most recent ones included a very successful



morning at Barton's Lagoon, Lake Wairarapa on 9 August, which attracted around 65 people. A riparian planting day was held on 22 August at the Whareroa Stream, Queen Elizabeth Park.

#### **4.2 Buggy walks**

A record 300 participants turned up at the August buggy walk along the Petone Foreshore to enjoy the occasion in fine sunny weather. An estimated 40 percent of these people were new to the event. As an indication of the growing success of the concept, this amounts to more people than the first "launch" event in Waitangi Park in 2006.

The September event will be held at Zealandia (the Karori Sanctuary). Despite attendees having to pay an entrance fee, we expect a good turnout.

We were delighted to accompany Sport Wellington to the inaugural Living Streets Aotearoa Golden Foot Awards held recently in the Wellington City Council chambers. Even better, the buggy walks won the Small Project category (budget up to \$5,000). This type of recognition is an excellent platform to promote the event further - the ensuing press release was featured in several community newspapers.

#### **4.3 Regional Outdoors Programme**

Preparations are under way for next summer's programme, with volunteers and organisations keen to be involved. New event partners include the Friends of the Otaki River (a guided walk up to Chrystalls Bend), the Otaki Fly-fishing Club (on an event similar to one run on the Hutt River) and Parawai Tramping Club (assistance on *Farm to Coast*). We are also working with the Mountain Safety Council on a *Take a Kid Tramping* day at Kaitoke Regional Park. The Friends of Maara Roa have proposed a *Seed Collection Day* at their restoration area which will involve GWRC officers. MIRO is planning a new walk in their Mainland Island to see some of the North Island robins recently released there.

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

An Expression of Interest in Active Communities funding has been forwarded to Sport and Recreation New Zealand (SPARC) by Sport Wellington on behalf of the four city councils, Regional Public Health and GWRC. The project is aimed at improving sport and recreation participation through improving the capability of clubs and groups.

The territorial authorities have a leading role in working with sports clubs around the Region and are providing the bulk of stakeholder funds and staff time in the Expression of Interest (which requires 40 percent of the funding to come from the relevant agencies). However, GWRC provides large open areas near urban centres that are often used by clubs and schools for training and competition purposes, and we want to ensure that clubs are aware of the opportunities available to them. We also support the concept of a regional approach, so that we share good practice, resource development, skilled facilitators and training.

## **6. Community Liaison**

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

Staff attended the Friends' Annual General Meeting at which the guest speaker was Dr Mary McIntyre on Parks' Usage and Perceived Benefits in relation to the project conducted on Belmont Regional Park. Convenor Pete Matcham spoke of the advocacy work of the Friends over the past year - they were also active on the Regional Outdoors Programme and securing a \$7,000 grant from Hutt City Council for a wetland/riparian restoration project near the Hill Road entrance to the park. The committee was re-elected.

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

The committee is preparing for a barn dance in October (which will remember Friend of the Park, Leon Kiel). They are also compiling a history archive, which will include some oral history interviews. The Friends' Annual General Meeting was held on 25 August, with Green Party co-leader Metiria Turei the guest speaker.

As part of the preparation of the Friends' Constitution, the group's solicitor said it would be prudent to have a Memorandum of Understanding with GWRC, to define and clarify expectations of both parties in our working relationship. This practice is quite common within the wider volunteer sector - here at GWRC Memoranda of Understanding are in place with both the Friends of Waikanae and Otaki Rivers' groups. We support this initiative of the Friends and look forward to working through it with them.

A meeting was organised with the Friends and Boffa Miskell to discuss the preparation of a Development and Implementation Plan for the MacKay's Crossing wetlands area.

## **7. Water usage**

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

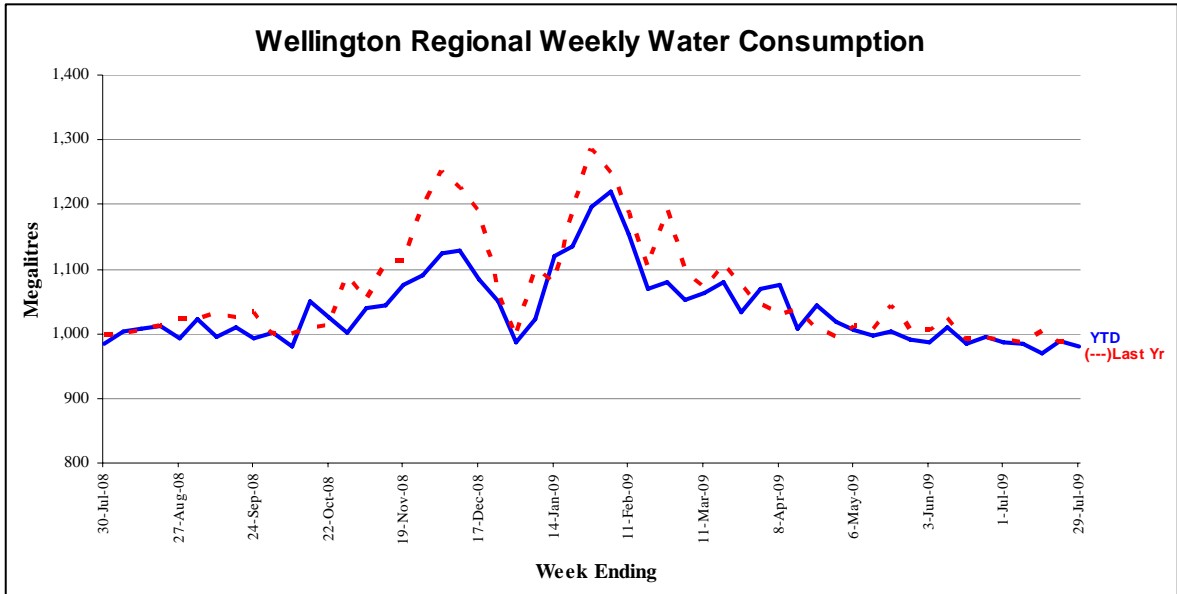


Figure 1 - Water sold over the last 12 months

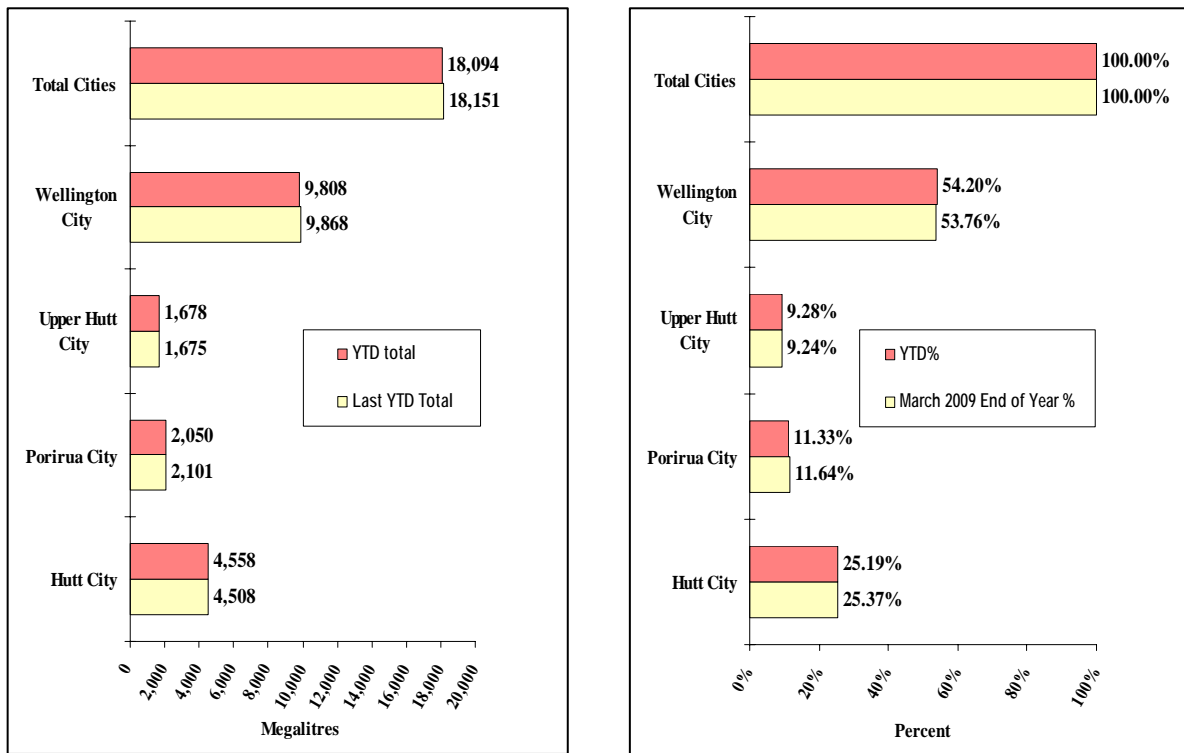


Figure 2 - Water sold during the metering year to date [April 2009 to July 2009]

# Water Supply

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

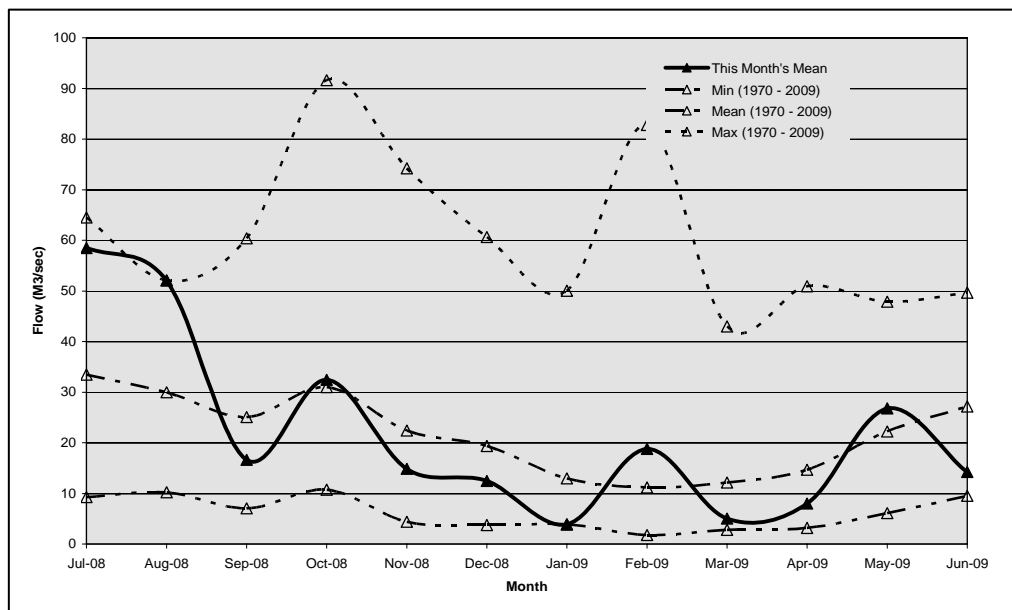
### 1. Supply situation

#### 1.1 General

There were no significant issues with supply for the period.

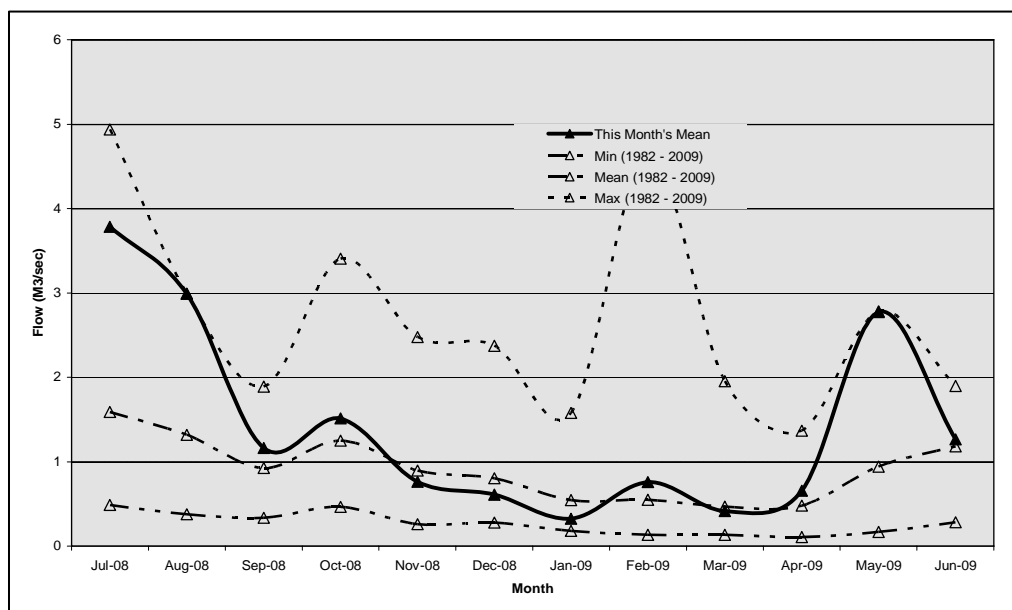
#### 1.2 Hutt River flows

The mean flow for the Hutt River at Birchville was near the minimum during the period.



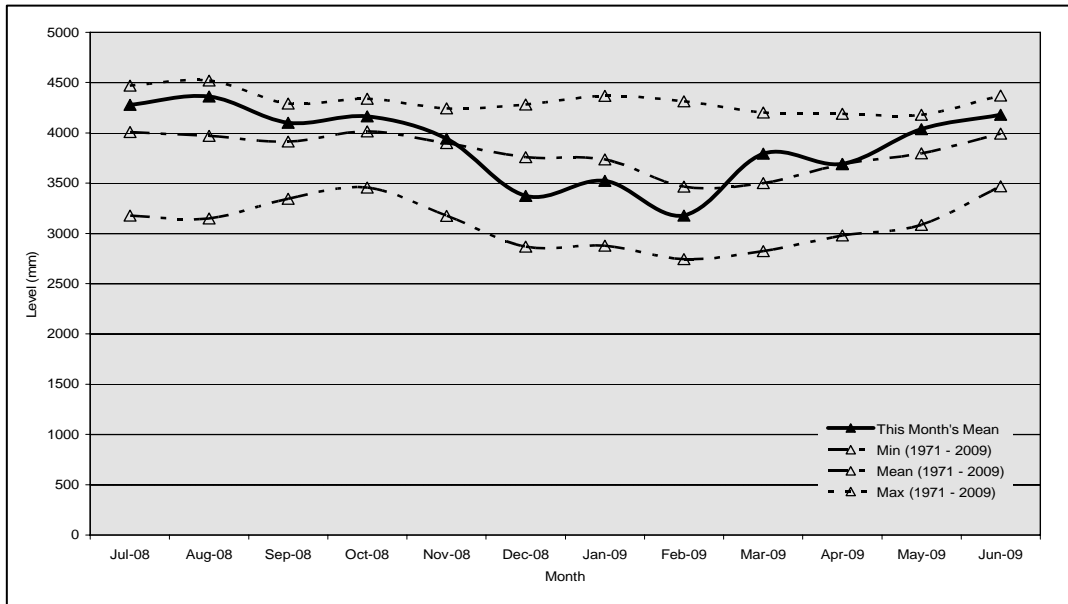
#### 1.3 Wainuiomata River flows

During the period the mean flow in the Wainuiomata River at Manuka Track was about the mean.



## 2.4 Aquifer levels

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



## 2. Electricity Tender

The Tender process is complete and recommendations are contained in a separate report (No. PE-09.526).

## 3. 1080 drop

The 1080 drop for the Hutt Catchment was carried out on 7 August and the Te Marua Water Treatment Plant has been on lakes' source water since that date.

## 4. Maintenance work for Capacity

Capacity has engaged our Pipelines Team to carry out an inspection of the Wellington City Council owned section of the 800 mm main feeding Macalister Park Reservoir. This work is scheduled to be carried out in mid/late August.

# Development and Strategy

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

### 1 Water supply strategy and development

#### Stuart Macaskill Lakes

Evaluation of the options to improve the performance of the lakes in a Wellington Fault earthquake is continuing. The 2008 changes to dam safety regulations and a better understanding of “near fault” earthquake accelerations mean we need to improve the lake lining system to eliminate any possibility of embankment failure as a result of leakage from the lakes following an earthquake. The work necessary to achieve this has been identified and is estimated to cost \$6.5 million.

Additional work to fully contain the water in the lakes following a Wellington Fault earthquake is estimated to increase the cost by a further \$3.5 million for both lakes when carried out concurrently with work to raise the level of the lakes. The evaluation will look at whether this additional work should be carried out and, if so, whether on Lake 1 or Lake 2, or both lakes.

A seismic risk assessment of the hillsides above and upstream of the Kaitoke weir has been commissioned, to provide information on the likelihood of the intake becoming inoperable following an earthquake. This information will help in determining the strategic value of the stored water in that situation and, therefore, the importance of preventing the need to drain the lakes.

Upgrading the lining of a lake will require the lake to be drained for a period of several months. Our preliminary assessment is to drain and upgrade one lake at a time, and carry out the work on both lakes over two successive summers. Any work required on the external face of an embankment can take place separately without the need to impact on the use of the lake.

Following completion of this evaluation, a report on the options and their associated cost and benefits will be provided to the Committee.

### 2. Reduced low flow at Kaitoke weir

The final draft documents for an application to change the water take resource consent conditions at Kaitoke have been completed and are currently undergoing internal review by GWRC Environment Management Division staff. The draft application seeks to reduce the minimum residual low flow from 600 litres/second to 400 litres/second for a period of five years. No change is sought to the amount of water that can be taken. Additional conditions are suggested, including the adoption of a low flow management plan for the Hutt River and additional monitoring of the river.

Granting this consent would assist the water supply situation considerably during the upgrading of the Stuart Macaskill Lakes’ lining.

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

Business and Economic Research Ltd (BERL) has provided a draft report for the first stage of this study, which is the development of a framework for assessing the cost to business through loss of utilities caused by a Wellington Fault quake. A workshop on the draft was held in August with a group of experts, including a representative from the Department of the Prime Minister and Cabinet. The workshop identified a number of areas to improve the report and for additional work that would be of benefit to Wellington Lifelines. The report will now be finalised.

Stage 2 of the study will be a scenario analysis focused on water supply utilising the framework developed in stage 1. The analysis will be carried out firstly for the existing wholesale water reticulation and then again assuming the Whakatikei dam is in place. The reduction in economic loss calculated will provide an indication of the economic benefits of the dam from faster reinstatement of the wholesale water supply.

Stage 2 of the economic assessment is planned to be completed in October.

This study does not include social and intangible costs and benefits, which are much more difficult to quantify. A separate social impact study by GNS Science is planned in conjunction with the Wellington Lifelines Group, although funding for it is not yet confirmed. The output from that study should also provide additional information relevant to the benefits of the Whakatikei dam.

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

A resource consent application to discharge water from the generator into George Creek when not required for source water for the Wainuiomata Water Treatment Plant is being prepared by Tonkin and Taylor Ltd. We plan to submit the consent application in September.

MWH New Zealand Ltd has been commissioned to prepare documentation for procurement of the generator and the design of electrical equipment. Water Supply engineers have begun detailed design work on the project. A proposal for design of the building has been sought from selected consultants.

The construction and commissioning of the project is programmed to be completed in May 2011. A total of \$1.6 million is budgeted this financial year. However, the generator forms a substantial part of this sum. Therefore, the timing of expenditure will be affected by the lead time for delivery of the generator and the terms of payment.

### **5. Puketiro wind farm**

RES New Zealand Ltd (RES) has confirmed that access to construct, operate and maintain the wind farm through private property has been agreed, and that access through Battle Hill Farm Forest Park from Paekakariki Hill Road is no longer planned for development. A media statement to that effect was made on 28 July.

However, access will still be required for road access and underground power and communications cables along the eastern boundary ridgeline with the Puketiro Forest, as previously approved by the Council. The access will be at or above the 350 contour line.

Overhead power cables to connect the wind farm to the national grid may be required down the forested face of Battle Hill Farm Forest Park to Transpower's 110 kV lines, which has also been previously approved by the Council. The alternative of connecting to Transpower's 220 kV lines within the Puketiro Forest is preferred by officers and has been confirmed by RES and Transpower as possible, but which connection point is planned to be used has not been finally decided at this time.

The draft replacement contract for development and operation of the wind farm has been changed to remove provision for main access through Battle Hill and the siting of turbines on Battle Hill land. The other access provisions, as approved by the Council, remain in the draft contract.

The draft contract incorporating all changes is currently with RES for agreement of the changes for completion of the final draft and legal review before executing the replacement contract.