
Water Supply and Parks

March 2009

Parks

Review of operations for the period ended 31 March 2009

1. Manager's comments

This month we say farewell to the Andy Marriott, the Ranger at Battle Hill, and his family. Andy has taken up a farming position in the Wairarapa. Andy has maintained the high standards at Battle Hill during his tenure in the position. The Battle Hill ranger position is currently being advertised and recruitment will be undertaken over the next month.

1.1 Parks Network Strategy

The data collection phase of the Parks Network Strategy is well under way. Questionnaires about the future purpose of regional parks have been mailed to clubs, interest groups and Friends of the Parks. These groups were invited to attend one of four night meetings to obtain more information about the strategy. The meetings themselves have not been well attended. However, there has been some interesting feedback. The main points raised so far are that the:

- (1) Groups are wondering why the strategy itself is only for a 20 year period and not 100 years or 500 years.
- (2) "Value" that parks contribute to society should be encompassed into any strategy that Greater Wellington Regional Council (GWRC) develops.
- (3) Timeframe for feedback from the community groups should be lengthened to allow them more time to talk to their members.

The closing date for the return of the questionnaires is 20 May. Discussions were held with iwi at an Ara Tahī workshop, while feedback is also being sort from territorial authorities, Government Departments and other interest groups, such as Grey Power.

1.2 Hutt 1080 operation

The Hutt 1080 possum control operation is planned to begin in the first fine weather window after 18 May. This operation covers the western forest of Kaitoke Regional Park and the Akatarawa Saddle in Akatarawa Forest, as well as the Hutt Water Collection Area. Non-toxic bait will be applied aurally first, followed by toxic bait at least a week later. Officers have informed hunters, tramping clubs and other users or concessionaires of the timing of the operation, while a news release about the operation was issued in late March.

An application for the approval of the Medical Officer of Health has been submitted and the Stuart Macaskill Lakes are being filled, so that water take from the river can be shut down during the operation.

2. Policy and Planning

Council adopted the *Parks, Forests and Reserves Bylaw* at the meeting on 2 April, 2009.

The Bylaw became operative on Friday, 1 May, 2009 and a public notice to this effect was placed in *The Dominion Post* (as is required under the *Local Government Act 2002*). Letters have been sent to the two submitters who commented on the draft Bylaw.

The Hearings for the draft *Battle Hill Farm Forest Park Management Plan* were held on 16 April at Pataka in Porirua. Fifteen submitters were heard. Councillors will consider the written submissions at this meeting (Report No. 09.247) and will deliberate on any changes to the draft plan at a future Committee meeting.

3. Western sector

Recent rodent monitoring in Battle Hill Farm Forest Park bush remnant showed that rodent tracking is reasonably high (30 percent). This is because possums in the remnant are being controlled by trapping at present to give the area a break from toxin use. Bait in bait stations will be used again nearer spring to lower rat numbers nearer bird breeding time.

Rodent/mustelid tracking tunnels currently being installed in Korokoro Valley will be serviced by the care-group, Korokoro Environmental Group, which will be assisting with environmental work in the area. The volunteers will complete the rodent/mustelid monitoring every three months once the tunnels are in place. This will provide useful data about the effectiveness of the pest control techniques being used in Korokoro bush in terms of providing a safer breeding habitat for birds and other wildlife.

A recent news release highlighted sightings of whitehead in Belmont Regional Park. The return is significant, as whiteheads disappeared from the area about a century ago. The pest control GWRC is completing, both on its own lands and in other areas in the Region, is playing a major role in helping native birds to expand their ranges and to return to areas from which they have been absent for decades.

We have supported a number of events in our parks over the period. Regional Outdoors Programme events, including buggy walks at Queen Elizabeth Park and Battle Hill, and the Porirua Grand Traverse, a multi sport event starting at Battle Hill and then through Belmont and Whitireia Park, were well attended.

We have been working through issues associated with clearing of weed from the Whareroa Stream at Queen Elizabeth Park. Weed clearance is required from a farming perspective in order to lower water tables in paddocks. But an outcome of the weed clearance work is that some eel and fish are excavated along with the weed and left on the stream banks. We tried to minimise the impacts of this operation by having staff members move fish back into the stream while the excavator was working on-site.

It is a challenging, but not unusual, scenario to have to balance the needs of both farming and the environments within our parks. This issue does highlight the sometimes conflicting needs of the two. One way we intend to address these types of issues through all our Western Sector parks is through sustainable land management plans that we highlighted at the last Committee meeting. I will be keeping the Committee informed of this work as it progresses.

Staff at Queen Elizabeth Park helped the Friends Group put together a successful application for funding the extension of the Queen Elizabeth Park bush remnant. Our thanks to those who contributed to this project, which will enhance both the visitor experience and biodiversity at Queen Elizabeth Park.

4. Eastern sector

Tawa fruit-fall plots have been remeasured in the forested area of East Harbour Regional Park and in the Wainuiomata Catchment. No possum damage to any of the fruit was found. This is good news, as possums preferably eat tawa fruit if it is available and these results show that possums must be in low numbers in these areas. Rodent damage was also low (5 percent fruit in East Harbour Regional Park and 6 percent in the Wainuiomata Catchment).

An audit of the work completed by Parks' staff on the remeasurement of the permanent vegetation plots in Akatarawa Forest was conducted in April. Landcare Research scientist, Ian Payton, was pleased with the standard of work shown by officers. The data will be added to the permanent plot national database run by Landcare Research.

Mustelid traps were installed in the Lakes Block of East Harbour Regional Park in mid-October last year.

Twenty-four mustelids (10 stoats, 13 weasels and 1 ferret) have been trapped over the six months that the traps have been in place. These pests prey on ground-dwelling birds, such as those that nest around Lakes Kohangatera and Kohangapiripiri. It is hoped that this work will improve the breeding success of these wetland birds next spring.

Officers have started work on the proposed North Island robin release for Wainuiomata Mainland Island. An application to the Department of Conservation (DoC) is required for permission to obtain and release these birds into the Mainland Island. DoC would prefer that birds be sourced from outside the Region, rather than from Kapiti Island or Karori Sanctuary, to increase genetic variation. A wide range of genetic variation improves "hybrid vigour" and the resilience of a population. As close a site as possible for the source population is best, as the longer it takes to transport the birds the greater the survival risk. Wanganui is the closest area where robins are still surviving in the wild and officers will investigate sites west of Raetihi to see if it would be possible to source birds from there. Mainland Island Restoration Operation (MIRO) obtained their robins from that area when they completed their robin release into East Harbour Regional Park last year. Tawa fruit-fall plots were remeasured inside the mainland island site and in the non-treatment area.

No possum damage was noted on any of the fruit. Rodent damage was low and there were no significant differences between the two areas.

Kaitoke Regional Park hosted a buggy walk during February, with more than 100 participants, along with 35 taking part in a bush craft event. During March 30 people took part in the Ridge Track adventure.

Four wheel drive events continue in the Akatarawa Forest, with 20 events held during February/March. The Karapoti Classic mountain bike event was held during March, with approximately 900 cyclists taking part.

Nine tours of the swing bridge track in Kaitoke were held during March for 168 Japanese students. School tours continue with four schools taking part, a total of 216 students. Two school camping groups also took advantage of the good weather at Kaitoke during February, with more than 200 students staying in the campground.

The Totara Park Scouts held their annual fundraising trolley derby at Te Marua. Over 60 trolleys were entered with the usual array of thrills and spills.

A search and rescue operation was held in Akatarawa Forest during March when three youths were trying to complete the Karapoti Classic route, got confused and ran out of daylight. Two Rangers were called out at 10.30 pm and assisted Police with the search, with one of the Rangers finding the youths at approximately 1.30 am.

The rewiring and maintenance of an old neglected fence in the Parangarahu Lakes Area is taking priority. Although stock entry has been minimised, neighbouring sheep are persistent at getting back in. If we are serious about conserving this unique piece of Wellington heritage then eliminating stock completely is a must.

During March we dealt with a number of issues regarding large hazardous exotic trees on the boundary of East Harbour Regional Park. These were obviously a concern to our affected neighbours and were promptly sorted thanks to the extensive felling and climbing skills of two of our maintenance team.

The third planting enclosure for Parangarahu Lakes area is about to be installed. This has the community backing of MIRO which grows and supplies all the planting stock. This is part of a revegetation plan for the block.

MIRO volunteers are still conscientiously trapping possums throughout the park. With more volunteers turning up, we have been able to install more trap lines in the Lowry Bay area, giving us even greater pest control coverage.

We have restricted access to the *Legolas* tree at Rivendell, Kaitoke, because of concerns over its health. Tour parties are respecting this. We plan to continue to improve this high profile area of Kaitoke.



Whitehead



Parangahu Lakes, East Harbour



MIRO planting in Parangarahu Lakes



Totara Park Scouts' annual fundraising derby



Marketing and Design

Review of operations for the period ended 31 March 2009

1. **Manager's comments**

The pressures of the current economic environment are certainly reverberating through local government and other agencies, clubs, interest groups and the general public, with clear calls to do more for less and seek the best possible value for money. We are finding that people in agencies and the community are interested in working together, whether it be on promotional partnerships, regional planning, events or promoting educational opportunities. Work programmes and developments indicate that, although the climate is tight and may well become more so, there are still excellent opportunities to engage with the community and deliver significant achievements. One good example is the number of environmental restoration grants secured by groups on the Kapiti Coast and the possibilities that represents to not only help restore the environment but encourage more people to volunteer and build stronger community networks.

1.1 **Water supply**

1.1.1 **Regional Water Strategy**

Following a Councillor workshop on the Regional Water Strategy in February, officers were asked to carry out “desk” research to investigate the effects of water meters compared with the current pricing regime to assess potential impacts. This research includes a summary of the findings of a 1993 assessment and an analysis of relevant 2006 Census data to describe household types most likely to be adversely affected by a change to volume based pricing of water.

1.1.2 **Water conservation research**

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

We have been advising the Ministry for Environment's Sustainable Households Project Team about a research project it has commissioned. This is a detailed investigation of attitudes and behaviour concerning three aspects of household water use, including garden watering. The Ministry is synthesising its recent Household Sustainability Survey findings with those of GWRC and Watercare. It will then undertake new research to enhance understanding about the three specific behaviours. We have been asked to comment on the development of the discussion guide and expect to gain useful insights for water conservation planning from our involvement with this project.

1.1.3 **Water efficient fittings promotion**

The planned promotion, which would involve working with a private sector partner, has been delayed as GWRC policy does not currently cover the form of promotion envisaged. We are now investigating how to accommodate this matter in conjunction with GWRC Secretariat.

1.1.4 Wholesale water pricing analysis

Following a request from our customers, this work was undertaken to assess the impact of reallocating the variable component of wholesale water supply costs (approximated as 15 percent between the customer cities). The aim was to reward lower water use by individual cities, regardless of the performance of the other cities we supply.

Various different average and median 'benchmarks' for water use were derived to reallocate the bulk levy and assess the impact on annual levy payments over the financial years ending 30 June 2005 to 2009.

This question of alternatives to the current levy allocation method was discussed at length with our customers between 1994 and 1999 without being resolved. As was found then, there was significant variation in the outcomes, depending upon the benchmarks used. Gaining agreement for a single alternative pricing methodology may be no easier now than 10 years ago.

1.1.5 Treatment plant visits

At the time of writing, two treatment plant tours took place during the reporting period.

We are working with Environment Education on options to promote water treatment plant and regional park visits to schools. While we do not have completed education resources on hand yet, we believe we can better inform schools of the opportunities for their students to gain a "hands on" understanding of what goes on in water treatment plants and in the parks.

1.2 Parks

1.2.1 Regional Parks' network strategy

Surveying of the general public is under way and the initial report due to be received on 8 June. The final completion date is anticipated to be 22 June.

Other work has included community and interest group meetings (four), general enquiries and ongoing planning. Members of the Parks' Friends groups have been the main participants at the meetings and have contributed many useful and thought-provoking comments. It is clear that some groups and people wish to comment independently of the questionnaires that we have sent out and that has been taken on board.

1.2.2 Wellington Regional Strategy Open Spaces Working Group

Officers have been contributing to progress with this project, including co-ordinating a review of opportunities for open space providers to better collaborate together and development of a matrix of open space.

1.2.3 *At the Heart* regional physical activity strategy

Recently released reports from Sport and Recreation New Zealand (SPARC) and the Ministry of Health show that less than half of the people in the Wellington Region are regularly physically active. Around 48 percent of the regional population undertake 30 minutes or more of moderate intensity

physical activity on at least five days out of seven. As the data was collected prior to *At the Heart* implementation, it provides a useful baseline indicator for the effectiveness of our work programmes.

Members of the Wellington Regional Recreational Initiatives Group (WRRIG) have recently been collating information regarding progress on the objectives identified in *At the Heart*. There have been significant achievements, particularly in policies and work in active transport, No Exceptions (Hutt Valley), adoption of urban design protocols, programmes targeting specific peoples (e.g., migrants, Pacific Island peoples, and mental health consumers), visibility of physical activity options and regional delivery of programmes and events.

While the various work-streams continue, WRRIG believes there are still gaps and opportunities that deserve further attention. Examples include engaging adult and community education providers, increasing cross agency support for clubs and groups, and encouraging volunteering as a way of being active and facilitating the activity of others. Work is under way on formulating a project that may draw these strands together and may be eligible for SPARC Active Communities funding.

1.2.4 Parks' visitor research

As part of the Regional Parks Network Strategy, residents' survey we are asking a question regarding parks visitation – the answer to which may be incorporated in our Annual Report. As a result, we have decided not to run a community usage and awareness survey this year. It may be that in future we commission this survey every three years, rather than annually, to save money but still usefully contribute to the LTCCP development process.

The report on the Pakuratahi and Akatarawa Forest visitor intercept survey will be presented at the June meeting of the Committee.

1.2.5 Signs

A signage plan was forwarded to the Wairarapa Moana Management Team for consideration. Through discussions it has become clear that agreement is required on the official name of the area before proceeding with road signage and on-site interpretation.

2. Events

A separate report gives details of the results of the Regional Outdoors Programme.

Around 160 parents, grandparents, caregivers and children took part in the April buggy walk on a sunny day at Battle Hill, which included a talk on the history of the area by the park ranger.

The May buggy walk will be held at the Wainuiomata Recreation Area on the Gums Loop, while the June event is scheduled for the Warriors Walk at Karori Cemetery.

Planning is under way for Arbor Day celebrations, with the dates being set as follows:

- Queen Elizabeth Park - Wednesday, 3 June 2009
- Battle Hill Farm Forest Park - Friday, 5 June 2009

3. Community liaison

3.1 Friends of Belmont Regional Park

Several of the Friends attended an evening meeting in late April regarding the Regional Parks Network Management Plan.

The group has indicated its preference for submitting a researched paper as part of the pre-draft comments phase.

3.2 Friends of Queen Elizabeth Park

We were delighted to hear that the Friends have been successful in securing a \$26,000 grant from DoC's Community Conservation Fund for the extension and planting of the park's bush remnant. Considerable time has been spent since hearing the news on developing a planting plan for the area, which was due with DoC by 30 April.

3.3 Friend of Maara Roa

We are planning a large-scale planting day with the group using Honda Tree funding on 13 June.

3.4 Hutt River Trail Operations Group

A draft of the updated *Hutt River Trail Operation Manual* formalising current practice was submitted to Operations Committee and we are awaiting comment.

4. Conferences

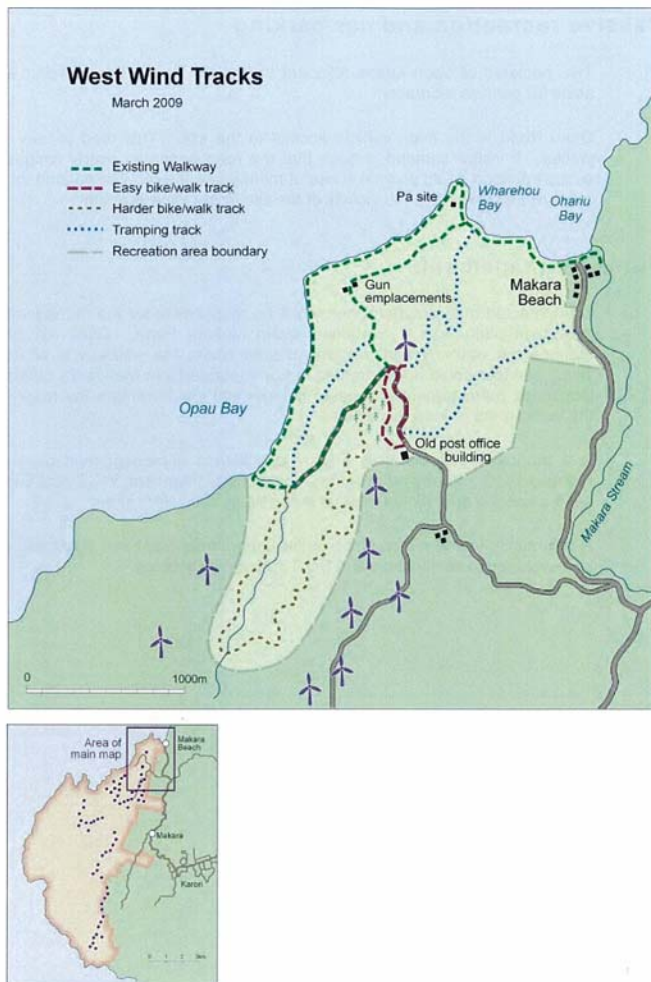
The recent New Zealand Institute of Landscape Architects' conference focused on managing the effects of energy and recreation projects in Central Otago. There are significant challenges involved in integrating these changes in the landscape in a way that preserves the essential character of the region with the visual impacts of hydro and wind generation and recreation. Field trips and workshops gave understanding of the complexities involved and opportunities to debate the issues.

5. West Wind Recreation Plan

In granting the resource consent for the West Wind wind farm, the Environment Court required Meridan Energy to establish a Recreation Group to help plan, develop and manage recreation use in what would be West Wind Park. Ross Jackson was invited to be part of the Recreation Group, along with Wellington City Council, DoC and local community representatives.

Tourism Resource Consultants were commissioned to develop the recreation plan at the northern end of the site. This is the area originally proposed as the future Makara Regional Park when the Wellington Regional Planning Authority developed the blueprint document *Regional Parks for the Wellington Region* in 1976. The West Wind Park will be paid for and continue to be owned and managed by Meridan Energy, and in many respects will become a quasi-regional park at no cost to GWRC.

The West Wind Park Plan is developed around the idea of creating a central hub with vehicle access, with a wind turbine within easy reach. Located near the old disused post office communications building, the hub will offer easy family recreation, including walking and mountain biking. It will provide the required access, not only to a turbine, but also to the World War II gun emplacements and the spectacular views. A series of loop walkways will be developed to complement the existing DoC walkway, making it possible for the more adventurous to go further afield.



The park will also present the opportunity to showcase a small part New Zealand's largest wind farm development, inform visitors about renewable energy generation and provide interesting stories about local history.

The track network detailed provides a significant recreation resource for Wellington and meets the relevant requirements of the West Wind Park resource consent.

6. Water usage

Charts detailing water sales for the year are shown below.

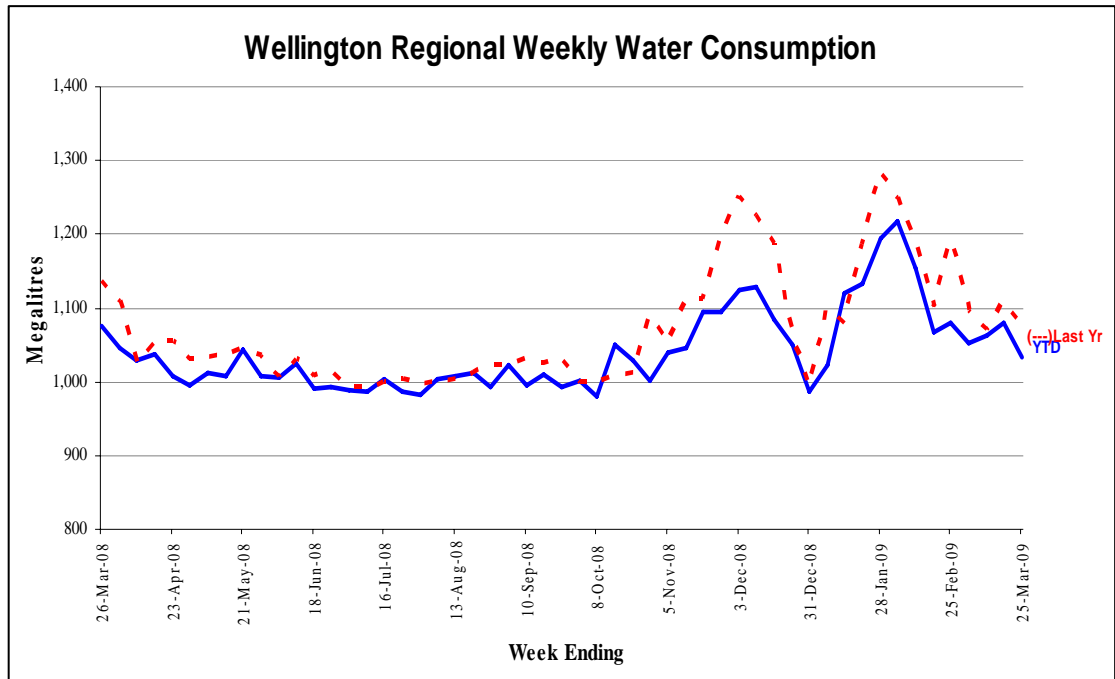


Figure 1 - Water sold over the last 12 months



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

Water Supply

Review of operations for the period ended 28 February 2009

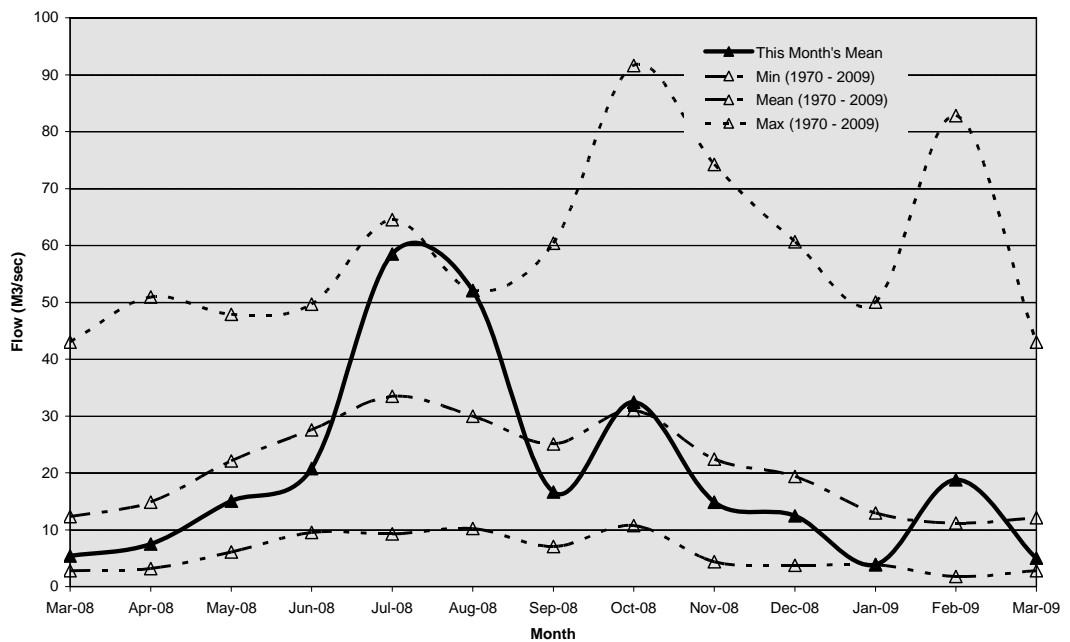
1. Supply situation

1.1 General

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

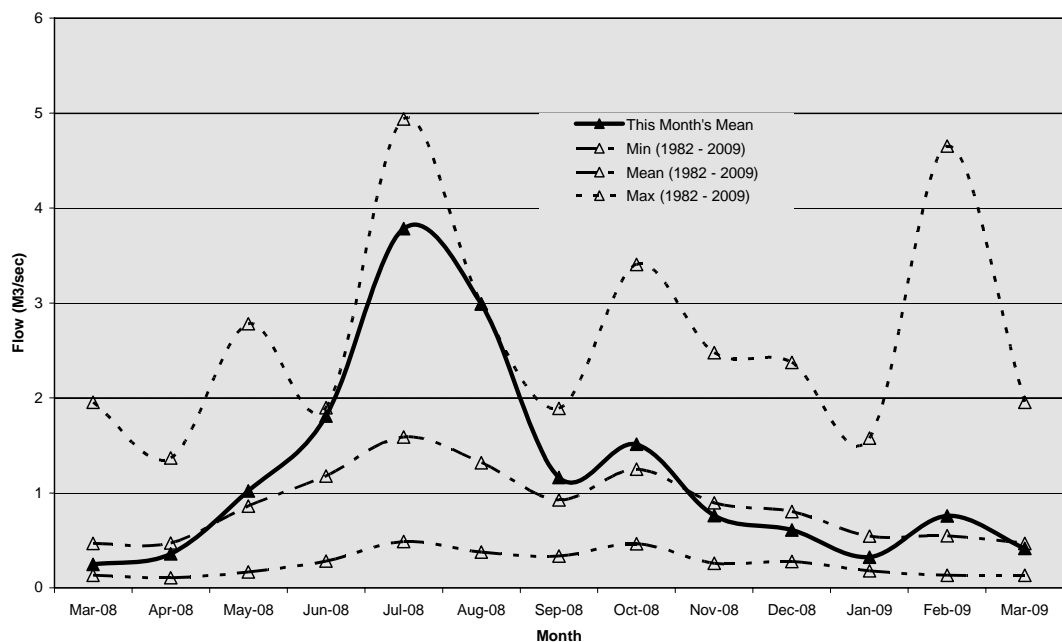
1.2 Hutt River flows

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



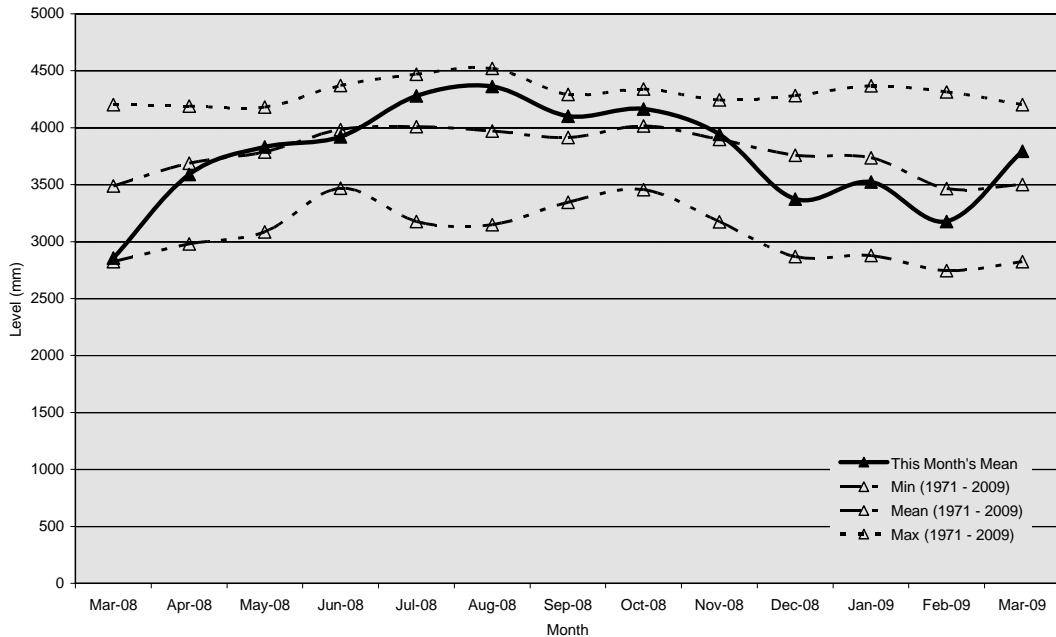
1.3 Wainuiomata River flows

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

After a slow start to the year, progress picked up again in March. Workshops were held to confirm the details around workflows and also decide on the allocation of roles and responsibilities. As the implementation of the SAP system requires changes to our purchasing procedures, we have decided to move to full on-line purchasing prior to the SAP “go live” date, which is now likely to be in August.

3. Public health risk management plans

Preparation of the public health risk management plans is going well and the first plan, for Waterloo source and treatment, was approved by the Drinking Water Assessor on 31 March. The assessor made some very positive comments about the quality and format of the initial plan.

4. Pipelines

Night time “stand overs” were carried out over two weeks to supervise contractors installing cable ducting along State Highway 2.

Three leaks were repaired during the month. These were on:

- The Porirua 450 mm main at Duck Creek,
- Wainuiomata Reservoir No. 1 branch line and
- A coupling in Kaiwharawhara Pumping Station. A faulty flow control valve at Trentham Reservoir was replaced.

- The installation of valve spindle extensions and zinc ribbon electrical earthing completed the first stage of the recommissioning of the OK main.

5. Health and safety - ACC

Work has started on the internal auditing of our health and safety management plan and procedures in preparation for the ACC Workplace Safety Management Practices audit, which is expected to take place in August/September 2009. Because of lack of resources, the implementation of the SafeTsmart database system is at a standstill at the moment. Additional resources are being sought to ensure we meet the divisional target of a fully implemented system by 30 June 2009.

6. Capital projects

The budgeted expenditure on the water supply capital works programme for the 2008/9 financial year is \$5.01 million. At the end of the third quarter actual expenditure was \$2.78 million.

It is expected the outturn at 30 June 2009 will be close to budget when the rebudgeted amounts are included.

The capitalisation process, which historically has occurred at the end of the financial year, will now take place each quarter. This will reduce the workload at year end, which is always an extremely busy time for all teams.

Development and Strategy

Review of operations for the period ended 31 March 2009

1. Water supply strategy and development

1.1 Stuart Macaskill Lakes

Tonkin and Taylor Ltd is in the process of completing the feasibility assessment for increasing the storage capacity of the Stuart Macaskill Lakes. The performance of the lake embankments and the lining have been analysed using a computer program to model the severe shaking in a Wellington Fault movement event, based on the latest seismic information available from GNS Science.

The preliminary results indicate that, in this extreme event, settlement and deformation of the embankment is likely to damage the lake lining on the upper slopes of the embankment. The risk of embankment movement and lining damage exists at the current water level of the lakes, and is not influenced by increasing the level and the volume of water stored in the lakes. This is not an immediate failure of the structure but rather the deformation would result in the need to take early action. Damage to the lake lining would make it necessary to drain the lakes immediately to a lower level to avoid further damage to the lining and embankments.

Identification of this risk of damage is a concern, as the lakes are an important back-up water source following an earthquake. If the risk of damage is confirmed, it would be prudent to carry out remedial work to ensure containment at least consistent with guidelines produced by the New Zealand Society of Large Dams and to improve the security of the lining, whether or not the storage capacity of the lakes is increased.

The analysis of the lakes and the feasibility report will identify any recommended remedial action and its cost. The report is expected to be completed in May 2009.

1.2 Reduced low flow at Kaitoke weir

We have received comments from GWRC Environment Management Division, Fish and Game New Zealand, DoC, and iwi on the scientific reports on the environmental impact of the proposed reduction in residual flow in the Hutt River. These have been collated and are being responded to. A cultural impact assessment of the proposed change in the consent conditions has also been received from a specialist consultant. This assessment is generally supportive but also encourages the efficient distribution and use of water.

A further presentation was made to Hutt City Council in March on the impact on flows in the Hutt River, the issue of algal blooms and management of the Waiwhetu aquifer. An updated Sustainable Yield Model (SYM) demand file has been received from NIWA and an evaluation of the impact that a reduced residual flow would have had on the Hutt River during the 2007/8 summer when the river flow was quite low has been completed.

Our target is to have addressed all the concerns identified and be in a position to conclude the work required for a resource consent application for reduced low flow by the end of June 2009.

1.3 Central business district (CBD) reservoir

Wellington City Council advised that work had been deferred until the 2011/12 financial year and preliminary work on the project has ceased.

However, this project was put forward as a project that could commence immediately with funding under the Government's infrastructure initiative. A response from Government has not been received at this stage.

1.4 Upper Hutt aquifer

Numerical modelling of Hutt River flows with and without abstraction of water from the Upper Hutt aquifer will be carried using the SYM after completion of the current analysis of lower residual flow on the Hutt River. This will allow the impact of different scenarios of abstraction rate and duration to be analysed, and provide important information should a resource consent be sought for the project.

1.5 Economic benefits of Whakatikei dam

GNS Science has completed the modelling of the impact of a Wellington Fault movement on the wholesale water supply network. This has identified the probable locations where pipe breaks or leaks are likely to occur from ground movement, shaking, liquefaction or landslide. We have prepared separate plans for repair of damage to the pipes with estimated repair times for both the existing water supply network, and on the assumption that a Whakatikei dam is in place.

This analysis shows that the water supply to Wellington City could be reinstated more quickly with water supplied from a Whakatikei dam. This information will be used to help assess the economic and social benefits of this quicker reinstatement.

Risk mitigation

The seismic analysis carried by GNS Science and our plan for repair has provided a better understanding of where failure is likely to occur following a fault movement, and a realistic estimate of the time involved to repair. This provides a useful basis for further planning of the emergency response needed for the wholesale water system and our four customer networks, and it will allow for better emergency management planning to help cope with water shortages over the period of reinstatement.

Following completion of the report in the next few weeks, the next step will be to discuss the implications of this analysis with the four city customers and identify where network improvements can be made over time to mitigate the risk or improve reinstatement times.

The information will also be provided to the GWRC Emergency Management Department for their civil defence planning.

2. Renewable energy

2.1 Wainuiomata mini-hydro power generation

Preliminary consultation has commenced with the Department of Conservation, Fish and Game New Zealand, and iwi on a resource consent for this project. A resource consent will be required to discharge excess water after the power generator that is not required for treatment for wholesale supply. The intention is to discharge the water into lower George Creek, just upstream of its confluence with the Wainuiomata River. Most of the water will be sourced from the Orongorongo Catchment, with the remainder sourced from upper George Creek. An initial verbal response from iwi has been positive. We are yet to receive a response from the Department of Conservation or Fish and Game New Zealand. This will be followed up in April/May.

2.2 Stoney Creek wind farm

Meridian Energy has installed a 30 metre anemometer mast on the Stoney Creek ridgeline to allow wind data to be collected over the next 12 months. The adjacent property owner has been informed of these activities and local helicopter companies are to be informed. An appropriate means of keeping the local community informed is currently being explored with Meridian.

2.3 Puketiro wind farm

Investigations, gathering information and planning for the wind farm is continuing. Whilst this is at an advanced stage for much of the wind farm infrastructure area, further work is required particularly at the eastern ridge (ridge C) before the application for resource consent can be considered. Significant progress has recently been achieved by RES New Zealand Ltd on wind farm logistics.