

## **Report 99.528**

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Report to the Policy and Finance Committee  
from David Benham, Divisional Manager Utility Services and  
Murray Kennedy, Strategy and Asset Manager

### **Retirement of Buick Street Pumping Station**

#### **1. Purpose**

To obtain approval to retire the Buick Street Pumping Station.

#### **2. Background**

Hutt City Council's (HCC) new Rahui reservoir has been completed and although commissioning started, it has now stopped. Completion of the process could take a further ten days once work resumes.

Hutt City Council wrote to the Wellington Regional Council (WRC) as a result of a request from the Petone Community Board. The WRC was asked to agree to a delay in commissioning the Rahui reservoir until the consultation process on Petone fluoridation was completed. This meant continuing to supply water from the Buick Street Pumping Station. Such a delay though could result in a further request for an extension if the Petone community expressed a preference for non-fluoridated water. This issue was considered by the Utility Services Committee on 7 September (Report No. 99.497 – **Attachment 1**). The Committee declined the request to keep Buick Street Pumping Station operational until the consultation process in Petone was completed. Subsequently, HCC was advised of this and asked to complete the commissioning of the Rahui reservoir as soon as practical. It was also indicated to HCC that we were not planning to keep the Buick Street Pumping Station in service past the end of this month.

### 3. **Buick Street Pumping Station and Petone Water Supply 1993 to 1999**

In October 1993 the Wellington Metropolitan Bulk Water Supply Committee considered the future water supply for Petone. Report No. 93.499 refers. The report contained information from Kingston Morrison consulting engineers. Kingston Morrison made the following comment about the Buick Street Pumping Station:

*The existing facilities at Buick Street were originally constructed in 1963 and are now showing signs of their age. In particular, one electric motor and the electrical starters and control systems are at the end of their economic life and will require replacing in the near future.*

As a result of the fluoridation consultation report, and taking this into account, the Committee recommended to Council that:

- (1) *The Buick Street Pumping Station remain in service until:*
  - (a) *completion of the new Rahui Reservoir;*
  - (b) *a major failure of equipment;*

*whichever is earliest.*
- (2) (a) *Water supplied to Petone will be at the lower cost sourced from the Wellington Regional Council trunk mains, normally from Wainuiomata.*

The Committee considered this issue in the knowledge that HCC was to build a new Rahui reservoir in the financial years 1994/95 and 1995/96 – Report No. 93.401 of 21 July 1993 and HCC letter of 27 August 1993.

Unfortunately, the delays in the completion of the new Rahui reservoir have continued. Construction was first mentioned in the WRC files in the early 1980s in correspondence with the Petone Borough Council.

Following the WRC's Utility Services Committee meeting on 18 June 1996, the Divisional Manager wrote to HCC expressing concern that HCC may further delay the work on Rahui, so completion will not be achieved until after 1997. It was again pointed out that Buick Street was nearing the end of its life. In response, HCC noted problems with the consent process and indicated completion was expected around December 1998 – HCC's letter of 28 June 1996.

In mid 1997 a resource consent for the reservoir construction was sought by HCC. This was supported by WRC.

Construction started in 1998, with completion expected by the end of June 1999. This target was not achieved. However, it is understood the reservoir contractor has been issued with a certificate of practical completion early in September 1999.

In May and June 1999, the Chairman of the Regional Council advised the Mayor of HCC, by letter (**Attachment 2**) that there was no option but to supply fluoridated Waterloo water to Rahui because of the condition of the Buick Street Pumping Station. It sought an urgent decision from Hutt City Council. These letters also advised that this did not preclude other options to supply Rahui in the longer term.

Hutt City Council's response to the advice in September 1999, that the WRC was not prepared to keep Buick Street operating until after the fluoridation consultation process, was to pass a resolution at the Council meeting on Tuesday, 14 September. The motion stated:

*That Council:*

1. *reaffirms its disappointment that WRC declined to consult on the issue of fluoridation of water supplies and points out that in the absence of consultation by the WRC, Hutt City Council is carrying out its own consultation process on the possible fluoridation of the Petone water supply;*
2. *agrees that Hutt City Council would have expected WRC to have delayed any change to the Petone water supply at least until the outcome of the consultation process was known;*
3. *advises the Wellington Regional Council that the Petone Community Board will be reaching a decision on the fluoridation or non fluoridation of the Petone water supply at the conclusion of the consultation process and that this decision is expected to be endorsed by Council at its meeting on 7 December 1999;*
4. *advises the Wellington Regional Council that the Hutt City Council will not be commissioning the new Rahui Reservoir until*
  - (a) *the outcome of the consultation process is known; and*
  - (b) *all outstanding issues with the Wellington Regional Council have been resolved including issues of costs; and*
5. *appoints Mayor Terris to lead a deputation to the meeting of the Wellington Regional Council on 21 September 1999.*

As a consequence, the date for completing the commissioning of the new Rahui reservoir is now indeterminate.

#### **4. Present State of the Buick Street Pumping Station**

Some details on its state were provided in the report to the Utility Services Committee on 7 September (Report 99.497 – **Attachment 1**).

In 1993 Kingston Morrison indicated that some components at the pump station were at the end of their economic life. Since then two electric motors have failed and there have been other minor failures. Kingston Morrison were correct in their assessment.

The latest electric pump motor failed in May this year. At an earlier date the other motor had failed and has not been replaced. The situation in May could have triggered the implementation of the 1993 resolution and the closure of Buick Street. Instead, as it was thought the completion of Rahui was imminent, it was decided to spend a few thousand dollars and carry out repairs. In light of events since then this decision is now questionable. Without the May 1999 repairs to the pump station, Petone would have been supplied then with chlorinated and fluoridated water.

It was indicated to the Utility Services Committee on 7 September, in Report 99.497, that costs to keep Buick Street Pumping Station going for 12-18 months, would amount to \$180,000. The sum is made up as follows:

<b>Health and Safety Items</b>		
Electrical work (starters switchgear and controls)	71,000	<sup>1</sup>
Caustic soda system	21,000	
General safety	<u>8,000</u>	
		100,000
<b>Other Items</b>		
General maintenance including motors and pipework		48,000
Resource consent		2,000
Network power charges which would have been avoided if Waterloo Treatment Plant is used (12 mths)		15,000
Rates, insurance and administration costs (12 mths)		<u>15,000</u>
		<b>\$180,000</b>

Electrical deficiencies were highlighted as a result of an independent electrical survey, carried out in order to prepare the recent report to the Utility Services Committee. The survey identified some disturbing safety issues. These have been partially minimised as an interim measure by ensuring two staff are always present when maintenance work is carried out. This can only be for a short-term as it greatly increases the operating costs and does not address the health and safety issues identified.

## 5. The Council's Policy on Fluoridation

The Council's position on the addition of fluoride to the public water supply was extensively covered in Report 99.182 to the Utility Services Committee on 7 May 1999. The report and final resolutions are included as **Attachment 3**.

## 6. Fluoridation Consultation Process

Hutt City Council resolved at its Council meeting on 12 May 1998:

*That a public consultation programme be carried out on the future fluoridation of water supplied from the Waterloo Treatment Plant.*

<sup>1</sup> By way of comparison the electrical upgrade at the Gear Island Treatment Plant, which is now near completion, will cost \$292,000. Gear Island is a similar process to Buick Street but the plant is about three times the capacity. The switchboard also incorporates direct current equipment which is not employed at Buick Street.

This has subsequently been amended to include only water supplied to Petone (and Korokoro). Our latest advice is that HCC will consider the results from the consultation process at its meeting on 7 December 1999. This has taken 19 months after it had been decided to undertake the process.

If HCC were to advise, immediately following its December meeting, that it required non-fluoridated water for Rahui it would take an estimated further 12 months to build the changes into the water supply system to allow this to happen. This assumes HCC also indicates a willingness to pay for the changes.

## 7. Future of Buick Street Pumping Station

Serious health and safety issues regarding the Buick Street Pumping Station have been determined. The risk of an electrical accident, or an accident involving the caustic soda system, has been identified as key items of concern.

A difficulty with this type of risk is that it is only usually known when you have overstepped the line, that is, an incident has occurred. The corollary is that it is difficult to tell how close you are to the line, or effectively what the margin of safety is. Sometimes there are warning signs: corroded pipes and fittings; arcing of switch gear when it is operated. Warning signs of this type are becoming obvious at Buick Street.

Risk has two dimensions: the likelihood of something happening; and the consequences should it do so. Society has, to some extent, reacted to the second dimension. In the New Zealand context it is reflected through the Health and Safety in Employment Act 1992.

In accordance with this Act, those accountable in WRC for health and safety have to ensure that the probability of an event is reduced to an acceptable level. The WRC has made a commitment to health and safety, from the top down. **Attachment 4** is the Council's statement on health and safety, and the Utility Services Division's Principles. The Utility Services Division recently completed a health and safety review and issued a new health and safety plan. This, plus ongoing training, are part of the overall commitment.

Within this safety system, Buick Street Pumping Station, with its numerous problems, does not sit easily.

The Utility Services Division senior management discussed Buick Street at its meeting on 9 September. The considered opinion is that Buick Street should be taken out of service as soon as practicable. This is a judgement call as this type of risk assessment is an art, not a science. Although it is a judgement call, it is still based on the information available.

There are two options for the Regional Council, either:

- (1) Close Buick Street permanently and supply Petone from another source; or
- (2) A temporary closure of Buick Street while upgrading work is carried out. This will take about three months and during this period Petone would be supplied from another source. Then permanently close Buick Street Pumping Station when the new Rahui reservoir is finally commissioned.

The second option had already been rejected by the Utility Services Committee but could be revisited by the Policy and Finance Committee, though this is not a recommendation.

Doing nothing is not regarded as an option. It would potentially expose the Council and management to liabilities under the Health and Safety in Employment Act 1992, a situation which is not tenable. This is with particular reference to **Section 6. Employers to ensure safety of employees**

Hutt City Council has already been advised that there are no plans to operate Buick Street after the end of September. If necessary this could be extended to the first few days of October. Sufficient time is then available for HCC to complete the Rahui commissioning process that is currently on hold.

## 8. **Alternative Water Supply for Petone**

There are two ways to supply Petone with water when the Buick Street Pumping Station is not available. Either with water from the 1050 main which normally supplies Wellington City. This water is chlorinated and fluoridated. Petone has been supplied from this source at various times in the past. Possibly the longest period was about six weeks during the electricity shortage in the winter of 1992. Or alternatively, Waterloo water is available, as supplied to other parts of Hutt City, provided the Rahui reservoir is commissioned.

## 9. **Conclusions**

In 1993 the WRC carried out a comprehensive and rigorous fluoridation consultation process through a panel of experts who received extensive public submissions. This consultation has since been mentioned in health literature in New Zealand and overseas. The expectation was that construction of the new Rahui reservoir would proceed imminently.

In 1998 the WRC reviewed its decision to supply chlorinated and fluoridated water to the new Rahui reservoir. It arranged refurbishment of the old Orongorongo to Karori Main so that Waterloo aquifer water could be supplied. The expenditure for this work and the new rising main exceeded \$700,000. After significant delays over many years, Rahui reservoir is ready. Except, that is, for the latest decision by HCC. As a consequence, officers have been forced to submit this paper because of the uncertainty of when Rahui will become operational.

Some of the Petone residents will be concerned that the fluoridation consultation process will not be completed before they receive fluoridated water. This is unfortunate but was avoidable. Hutt City Council itself resolved to consult with its community sixteen months ago. The WRC now has no option but to enact its firm commitment to health and safety issues. Closure of the Buick Street pump is not optional. The only issue is whether it should be closed permanently or until repairs are carried out. The former is proposed.

## 10. **Recommendations**

*That the Policy and Finance Committee recommend to Council that:*

- (1) Petone is provided with water from the 1050 Main from Monday, 27 September 1999 unless HCC can confirm:
  - (i) it will have commissioned the new Rahui reservoir no later than Friday, 8 October 1999; and*
  - (ii) it will accept Waterloo sourced water for the new Rahui reservoir**
- (2) Notes that HCC may make an approach to WRC concerning fluoridation, after its meeting on 7 December 1999.*

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