



**greater** WELLINGTON  
THE REGIONAL COUNCIL

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Committee Utility Services  
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## **Wholesale Water Capital Works Programme 2003-2004: Half Year Review**

### **1. Purpose**

The purpose of this report is to present a summary of the financial position of the projects making up the 2003-2004 Wholesale Water Capital Works Programme, as at 31 December 2003 for the Committee to review.

### **2. Summary**

The forecast expenditure on 2003-2004 Annual Plan projects is \$4,521,000 against a total budget of **\$5,111,000**, giving a projected saving of \$590,000. Of the \$4,521,000, it is proposed to transfer \$892,000 into the 2004/05 financial year to fund 2003-2004 projects that have been delayed.

### **3. Source projects**

Expenditure on works associated with water collection is forecast to be \$300,000 against a budget of \$355,000. A detailed inspection of the Kaitoke weir has shown the need for upgrading to be substantially less than expected, resulting in a saving of \$190,000. Modifications to the Orongorongo River intake are expected to cost an additional \$15,000.

Delays to stage 1 of the Wainuiomata catchment boundary fence caused by bad weather have resulted in expenditure of \$40,000 on this work occurring in 2003/4. It is also proposed to extend the scope of stage 2 of this project to enable completion of the entire northern boundary this summer. This extension would cost an additional \$80,000.

## 4. Treatment plant projects

Expenditure on works associated with water treatment is forecast to be \$976,000 against a budget of **\$1,119,000**. Savings are expected to be made on the following projects:

- ⌘ Replacement of equipment at Te Marua and Waterloo WTPs (saving \$395,000). A systematic evaluation of items of equipment nearing the end of their theoretical useful life has been commenced, but to date few items needing immediate replacement have been identified.
- ⌘ Resealing of roads at Wainuiomata (saving \$44,000). Additional sealing work carried out in 2001-2002 has reduced the cost of completing the re-seal programme this year.

Treatment Plant Projects requiring additional funding are as follows:

- ⌘ Accommodation for Waterloo mobile generators. Completion of this project is expected to cost an additional \$29,000 this financial year. Approximately \$10,000 of this is deferred expenditure from 2002-2003, \$10,000 is for building services which were inadequately budgeted for, and approximately \$5,000 is for bunding and sealing the floor to ensure that any diesel spills are controlled.
- ⌘ Standby Generator at Waterloo (\$10,000). Some of this additional expenditure has arisen because the overseas manufacturer supplied incorrect components. Efforts are being made to recoup this expenditure.
- ⌘ Replacement Controller for Wainuiomata WTP (\$84,000). Approval for this additional expenditure was given by the Utility Services Committee on 25 November in response to report No.3.691.
- ⌘ Minor improvements, modifications and replacements of treatment plant equipment (\$173,000) The more significant items included in this project are:
  - Refurbishment of the Willoughby St well pump (\$82,000). This pump failed a few weeks before it was due to be taken out of service for overhaul.
  - Replacement of the Penrose St variable speed drive unit (\$56,000). This unit is 15 years old and is obsolete.
  - Replacement of colour meter at Wainuiomata WTP (\$50,000). This meter is 10 years old and obsolete. Its replacement will improve dosing control.
  - Replacement of Wainuiomata uninterruptible power supply (\$25,000). This unit is at the end of its life and undersize for the current duty.
  - Refurbishment of valves at Gear Island (\$34,000). These valves are 28 years old and in need of overhaul.

## 5. Pipeline projects

Expenditure on work associated with pipelines is forecast to be \$1,420,000 against a budget of **\$1,990,000**.

Projects where savings have been achieved are as follows:

- ⌘ Purchase of repair materials for Silverstream Bridge (\$150,000). UHCC have confirmed their intention to strengthen this bridge in 2004-2005, reducing the requirement to store spare materials. The balance available for this project (\$100,000) is to be transferred to 2004-2005 to allow time to further consider possible damage mechanisms and scenarios.
- ⌘ Replacement of the OK pipeline between the Wainuiomata tunnel and the treatment plant (\$98,000). A favourable tender has reduced the cost of this project.
- ⌘ New water main on Paremata Bridge (\$175,000). Development of the detailed design for this work and the calling of tenders has enabled a more accurate, reduced, cost estimate to be derived.
- ⌘ Relocation of the Kaitoke main between SH2 and SH58 (\$25,000). Investigations to establish the best route for this relocation are expected to cost less than budgeted.

## 6. Pumping stations

Expenditure at pumping stations is expected to cost \$405,000 against a budget of **\$1,162,000**.

Projects that are re-budgeted are as follows:

- ⌘ Upgrade of Karori Pumping Station (\$475,000). This project has been delayed by difficulty in confirming a site for the new pumping station, and it is not expected that any significant construction work will occur this year. A number of possible sites have been investigated in some detail at the request of WCC officers. It is proposed to transfer this funding into the 2004-2005 financial year.
- ⌘ Point Howard Pumping Station (\$317,000). Delays have also been experienced in acquiring land for this project. It is not expected that significant physical works will be undertaken this financial year.

Projects expected to cost more than budgeted are as follows:

- ⌘ Pinehaven re-machining (\$15,000). The replacement of pumps at this site is expected to cost more than originally budgeted.
- ⌘ Pumping station security upgrade (\$20,000). Completion of this work is expected to cost more than originally budgeted.

## 7. Monitoring and control projects

Expenditure on monitoring and control projects is expected to be \$44,000 against a budget of \$35,000.

It is anticipated that an additional \$9,000 will be required to complete the remote meter reading project .

## 8. Minor work

Minor works are expected to cost \$408,000 against a budget of \$200,000. The most significant projects funded from the minor works budget are:

- Waterloo wellfield pressure monitoring - \$45,000
- Refurbishment of the Waterloo mobile generator sets - \$36,000
- Replacement of the Waterloo wellfield pump control valves - \$25,000
- Renewal of the telemetry system at Wainuiomata WTP - \$95,000
- Diversion of the Sar St Branch Main to avoid a new house - \$47,000
- Replace PLC at Haywards Pumping Station - \$47,000
- Provision of safe access at various locations - \$30,000
- Spares for obsolete SLC 500 PLCs - \$30,000
- Unplanned replacement or refurbishment of minor distribution assets - \$20,000.

## 9. Seismic protection

A sum of \$37,000 is expected to be spent on various investigations and some minor work aimed at reducing the vulnerability of water supply assets to seismic damage. This is a considerable saving over the budget allowance of \$250,000. This budget was set some years ago, based on a preliminary evaluation of seismic risk. More detailed investigations have shown that, in many cases, seismic protection cannot be readily undertaken, or the cost outweighs the benefit achieved.

## 10. Summary

**Summary of projected permanent savings by asset type including 2004/5 rebudgeting**

<b>Category</b>	<b>Budget</b>	<b>Forecast</b>	<b>Variance</b>
Source Projects	\$355,000	\$300,000	-15%
Treatment Plant Projects	\$1,119,000	\$976,000	-13%
Pipeline Projects	\$1,990,000	\$1,520,000	-29%
Pump Stations and Reservoirs	\$1,162,000	\$1,197,000	+3%
Monitoring and Control Projects	\$35,000	\$44,000	+31%
Minor Works & Seismic Protection	\$450,000	\$484,000	+8%
<b>Total</b>	<b>\$5,111,000</b>	<b>\$4,521,000</b>	<b>-12%</b>

### Breakdown of how projected savings are to be achieved in 2003-2004

Saving through reduced project scope	\$970,000
Direct cost savings	\$342,000
Savings through projects being deferred or delayed	\$892,000
<b>Total projected savings</b>	<b>\$2,204,000</b>

Details are shown on attachment 1

### Breakdown of additional costs

Increased project scope	\$461,000
Projects where increased costs are expected	\$182,000
Costs of completing 2002-2003 projects	\$79,000
<b>1</b>	<b>1</b>

Details are shown on attachment 1

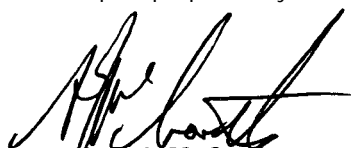
Summary information is expected to be included in the Chief Financial Officer's half yearly report to the Council's Policy, Finance and Strategy Committee.

## 11. Recommendations

*It is recommended that the Committee:*

1. *receive the report and note its contents.*
2. *recommend to the Policy, Finance and Strategy Committee that the detail changes outlined in this report are approved.*

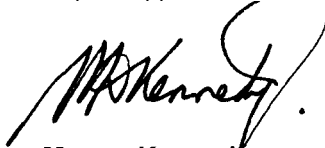
Report prepared by:



**Alastair McCarthy**

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Greater Wellington Water

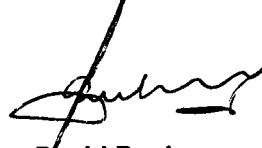
Report approved by &



**Murray Kennedy**

Strategy and A&et Manager  
Greater Wellington Water

Report approved by:



**David Benham**

Divisional Manager  
Utility Services

**Attachment 1: 2003-2004 Capital Works Programme - Summary of Changes**

## 2003-2004 Capital Works Programme Summary of Changes

### Savings

Projects where scope has been reduced

	\$s	\$s
Kaitoke Intake Improvements	190,000	
Replacement of equipment at Te Marua WTP	390,000	
Replacement of equipment at Waterloo WTP	5,000	
Purchase of repair materials for Silverstream Bridge	150,000	
Cathodic Protection	22,000	
Seismic Protection	213,000	
	<hr/>	970,000

Projects where cost savings are expected

Road Reseals at Wainuiomata	44,000	
OK Main replacement tunnel to treatment plant	98,000	
Investigation of SH2-SH58 relocation of Kaitoke main	25,000	
Relocation of Pukerua Bay main on Paremata Bridge	175,000	
	<hr/>	342,000

Projects deferred or delayed for which funding is to be transferred to 2004/5

Repair Materials for Silverstream Bridge	100,000	
Karori Pumping Station	475,000	
Point Howard Pumping Station	3 17,000	
	<hr/>	892,000
<b>Total Savings</b>		<hr/> <b>2,204,000</b>

## Additional Costs

Projects where scope has increased

	\$s	\$s
Wainui catchment Boundary fence stage 2	80,000	
WTP unplanned replacem.ent and refurbishment	173,000	
Minor Works	208,000	
		461,000

Projects where additional costs are expected or have been incurred

Orongorongo Intake modifications	15,000	
Waterloo WTP Mobile Generator Accommodation	29,000	
Waterloo WTP Standby Generator	10,000	
Wainuiomata WTP Replacement Control System	84,000	
Pinehaven PS Upgrade	15,000	
Security Upgrade at Pumping Stations	20,000	
Remote Meter Reading	<b>9,000</b>	
		182,000

Completion of 2002-2003 Projects **79,000**

Total additional costs 722,000

### Summary

Total 2003/4 project savings	2,204,000
Total 2003/4 additional costs	<u>(722,000)</u>
Total 2003/4 net savings	1,482,000
Total 2004/5 project rebudget estimate	<u>(892,000)</u>
Total permanent savings compared to 2003/4 Annual Plan	<u>590,000</u>