



greater WELLINGTON
THE REGIONAL COUNCIL

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To: Divisional Manager, Utility Services
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Greater Wellington Water Capital Works Programme 2004/05: Review at 30 April 2005

1. Purpose

The purpose of this report is to present a summary of the financial position of the projects making up the 2004-2005 Wholesale Water Capital Works Programme, as at 30 April 2005.

2. Summary

The forecast expenditure on 2004-2005 Annual Plan projects is **\$5,106,000** against a total budget of **\$5,312,000**, giving a projected saving of **\$206,000**. Of the \$5,106,000, it is proposed to transfer **\$1,318,000** into the 2005/06 financial year to fund 2004-2005 projects that have been delayed. These delays have been mainly due to hold-ups in the consenting process or a lack of resources available from consulting engineers employed on the work. An unexpectedly high tender price has led to the deferral of the proposal to lower and improve the safety of the Lower Wainuiomata Dam. The current year net expenditure up to 30 June 2005 is forecast to be **\$3,788,000**.

3. Project groups

Projects are listed under a particular group in the Capital Works Programme. Each group is reviewed below.

3.1 Source projects

Expenditure up to 30 June 2005 on works associated with water collection (sources) is forecast to be **\$253,000** against a budget of **\$650,000** (under expenditure **\$397,000**). A delay to the project to aerate the Stuart Macaskill Lakes has resulted in \$43,000 of expenditure being transferred to next financial year, and deferral of detailed investigations of off river storage at Wainuiomata has saved \$100,000. The latter project has been delayed because of the increased population growth and the decision to review the next major source to be developed. It is likely that the project to improve the Lower Dam at

Wainuiomata will be deferred because of the high tenders received. This funding will not be re-budgeted to 2005/06. Rather new funding will be sought in 2006/07 or when it is judged that economic conditions will lead to more competitive tendering. Design work on strengthening the Stuart Macaskill lake towers has not progressed as fast as anticipated, and \$22,000 is to be transferred into 2005/06. Additional costs are expected for the spare pump at Waterloo (\$5,000) and stage three of the Wainui catchment boundary fence (\$35,000).

3.2 Treatment plant projects

Expenditure to 30 June on works associated with water treatment is forecast to be **\$1,100,000** against a budget of **\$1,050,000** (overspend **\$50,000**). There are small over expenditures on several projects and a \$50,000 deferral of expenditure on the Te Marua Split Stream project. Several serious equipment failures at Waterloo have resulted in a \$78,000 over expenditure on unplanned minor equipment replacements.

3.3 Pipeline projects

Expenditure to 30 June on work associated with pipelines is forecast to be **\$820,000** against a budget of **\$1,420,000** (under expenditure **\$600,000**).

Projects where savings have been achieved are as follows:

- Purchase of repair materials for Silverstream Bridge (\$100,000). This project has been deferred in the expectation that investigation and foundation work carried out for the Silverstream bridge strengthening will provide better information on the location of the Wellington fault.
- Relocation of the Kaitoke main on Silverstream Bridge (\$140,000). This expenditure has been delayed because of delays in receipt of funding from Transit NZ for bridge strengthening work. This approval has now been received, and the project is proceeding, under the control of Upper Hutt City Council.
- Relocation of the Kaitoke main between SH2 and SH58 (\$200,000). This project is behind programme and the forecast includes deferral of \$200,000 into next financial year, as it is not now expected that construction work will begin this financial year.
- Purchase of seismic repair stocks (\$200,000). This expenditure has been deferred to 2005-2006 because a review of likely earthquake damage and current stocks has not yet been completed. The possibility of coordinating spare pipe stocks with Watercare Services Ltd is also being investigated.
- The scope of Cathodic protection investigations has been reduced, saving \$25,000.

Additional expenditure is anticipated or has been incurred as follows:

- An additional \$20,000 has been spent on essential valve replacements.
- An additional \$45,000 has been spent on replacing air valves on the Porirua Branch. This work has been brought forward from 2005/06.

3.4 Pumping stations

Expenditure at pumping stations is expected to be **\$747,000** against a budget of **\$1,432,000** (underspend **\$685,000**). The reduction is due to delays in the following projects.

- Upgrade of Karori Pumping Station (\$390,000). The consenting and design phases of this project have been delayed, and a start on construction will be later than planned.
- Point Howard Pumping Station (\$245,000). Delays have also been experienced in the consenting and design phases of this project. The \$245,000 under expenditure is to be re-budgeted to 2005/06.
- Randwick Pumping Station Modifications (\$50,000). This work cannot be undertaken until the new Point Howard Pumping Station is operational.

3.5 Reservoir projects

No expenditure on reservoir projects is expected (saving **\$50,000**) because investigations of the proposed new reservoir at Takapu have been deferred in favour of other more important strategic studies.

3.6 Monitoring and control projects

Expenditure on monitoring and control projects is expected to be **\$142,000** against a budget of **\$260,000** (saving **\$118,000**).

This saving has come about because planned replication of telemetry equipment at WCC sites has been deferred pending the outcome of discussions with Capacity Water Management on integrating telemetry systems rather than separating them. However these discussions have become protracted and the likely outcome is not yet clear.

3.7 Minor work

Minor works are expected to cost **\$486,000** against a budget of **\$200,000** (additional cost **\$286,000**) because the number of minor works warranting funding allocation was greater than anticipated. The most significant projects funded from the minor works budget are:

- Repairs to the Kaitoke No. 2 tunnel to prevent leakage (\$20,000).
- Replacement of pump control valves at Waterloo to increase pumping efficiency (\$43,000).
- Replacement motor and variable speed drive upgrade for Willoughby St well (\$51,000).
- Installation of river bank protection for the Wainuiomata raw water main where the main was damaged in February 2004 (\$65,000).
- Replacement of the meter at George Creek which has failed (\$16,000).

- Resealing of vehicle manoeuvring area and access road at Gear Island plant (\$27,000).
- Remote reading on Colgate meter (extension of remote meter reading programme) (\$20,000).
- Relocation of Gatehouse valve at Wainui, and associated issues (\$77,000).
- Noise suppression at the Warwick St Pumping Station (\$19,000).
- Provision of works to provide safe access to various facilities (\$30,000).
- The unplanned replacement of minor assets in the distribution network (\$64,000). The bulk of this money has been spent on improvements associated with the upgrade of SH1 at Paremata.

3.8 Seismic protection

A sum of **\$102,000** 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 reduction in the scope of work results in a saving of **\$148,000** (budget **\$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. The main projects this year are:

- Protection of reservoir inlet pipes to prevent reservoirs draining in the event of seismic damage to the inlet pipe (\$20,000).
- Installation of a new line valve in Wainuiomata to facilitate supply to Wainuiomata only in the event of seismic damage to the bulk main (\$41,000).
- Installation of a high flow auto closure valve on the Gracefield reservoir inlet main (\$26,000).

4. Completion of 2003/04 projects

Expenditure on completion of 2003/04 projects, for which there was no budget allocation, amounts to **\$138,000**. The bulk of the expenditure is \$91,000 paid to Contech Ltd against their claims for extra payment for the slip lining of the OK main in Petone.

5. Summary

Summary of projected expenditure reductions and additions during the 2004/05 financial year by asset type.

Category	Budget	Forecast	Variance
Source Projects	\$650,000	\$253,000	-61%
Treatment Plant Projects	\$1,050,000	\$1,100,000	+5%
Pipeline Projects	\$1,420,000	\$820,000	-42%
Pump Stations and Reservoirs	\$1,482,000	\$747,000	-50%
Monitoring and Control Projects	\$260,000	\$142,000	-45%
Minor Works, Seismic Protection & completion of 2003-2004 projects.	\$450,000	\$726,000	+61%
Total	\$5,312,000	\$3,788,000	-26%

Summary of projected permanent savings and additional costs by asset type (that is, including spending against budget to be transferred to the 2005/6 financial year)

Category	Budget	Forecast	Variance
Source Projects	\$650,000	\$296,000	-55%
Treatment Plant Projects	\$1,050,000	\$1,150,000	+10%
Pipeline Projects	\$1,420,000	\$1,360,000	-4%
Pump Stations and Reservoirs	\$1,482,000	\$1,432,000	-3%
Monitoring and Control Projects	\$260,000	\$142,000	-45%
Minor Works, Seismic Protection & completion of 2003-2004 projects.	\$450,000	\$726,000	+61%
Total	\$5,312,000	\$5,106,000	-4%

Breakdown of how projected expenditure reductions are to be achieved in 2004/05

Saving through reduced project scope	\$333,000
Reduced expenditure through projects being deferred or delayed	\$1,860,000
Total projected expenditure reduction	\$2,193,000

Details are shown on attachment 1

Breakdown of additional costs in 2004-2005

Increased project scope	\$461,000
Projects where increased costs are expected	\$70,000
Costs of completing 2002-2003 projects	\$138,000
Total expected additional costs	\$669,000

Details are shown on attachment 1

The total net reduction in expenditure is **\$1,524,000**, of which **\$1,318,000** is to be transferred to the 2005/06 financial year, leaving a net saving of **\$206,000**. The budget transfer amount will be confirmed before 23 May.

6. Recommendations

It is recommended that:

An amount of \$1,318,000 (to be confirmed) be transferred to 2005/06 to fund projects originally budgeted in 2004/05, but which have been delayed.

Alastair McCarthy,
Asset and Quality Manager,
Greater Wellington Water

Attachment 1: 2004/05 Capital Works Programme Details of Expected Changes

**2004/05 Capital Works Programme
Details of Expected Changes**

Savings

Projects where scope has been reduced

	\$s	Total \$s
Kaitoke Intake Improvements	2,000	
Replacement of equipment at Wainui WTP	18,000	
Replacement of equipment at Waterloo WTP	22,000	
Cathodic protection upgrade	25,000	
Telemetry System renewal	118,000	
Seismic Protection	148,000	
	<hr/>	333,000

Projects deferred or delayed

Strengthen Lake Towers	22,000	
Lake aeration*	43,000	
Wainui off river storage	100,000	
Wainui Lower Dam	270,000	
Te Marua Split Stream Development*	50,000	
Repair Materials for Silverstream Bridge	100,000	
Relocate Kaitoke main on Silverstream Bridge*	140,000	
Relocate Kaitoke main SH2 to SH58*	200,000	
Purchase seismic repair stocks*	200,000	
Karori Pumping Station*	390,000	
Point Howard Pumping Station*	245,000	
Randwick Pumping Station modifications*	50,000	
Takapu reservoir investigations	50,000	
	<hr/>	1,860,000
Total Savings		<hr/> 2,193,000 <hr/>

* Project funding is to be transferred to 2005-2006. Total **\$1,318,000**.

Additional Costs

Projects where scope has increased

	\$s	\$s
Replacement of equipment at Te Marua	17,000	
Replacement of controls at Te Marua	15,000	
Unplanned minor replacements at WTPs	78,000	
Replacement of valves	20,000	
Replacement of air valves on Porirua Branch	45,000	
Minor Works	286,000	
		461,000

Projects where additional costs are expected or have been incurred

Spare well pump for Waterloo	5,000	
Wainui catchment boundary fence	35,000	
Wainui road re-seals	30,000	
		70,000
Completion of 2003-2004 Projects		138,000
Total additional costs		669,000

Summary

Total 2004-2005 project savings	2,193,000
Total 2004-2005 additional costs	(669,000)
Total 2004-2005 net savings	1,524,000
Total 2005-2006 project rebudget estimate	(1,318,000)
Total permanent savings against Annual Plan Budget.	206,000