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Committee Parks, Forests and Utilities  
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## Wholesale water capital works programme 2007-2008 third quarter review

### 1. Purpose

The purpose of this report is to present to the committee a summary of the financial position of the projects making up the 2007/08 Wholesale Water Capital Works Programme as at 31 March 2008, to note changes from the December 2007 half year forecast and to identify unspent funding required in 2008/09 to complete 2007/08 projects.

### 2. Significance of the decision

The matters in this report do not trigger the significance policy of the Council or otherwise trigger section 76(3)(b) of the *Local Government Act 2002*.

### 3. Summary of capital works programme outcome

The forecast expenditure to 30 June 2008 for 2007/08 Annual Plan projects is **\$4,304,000** against a budget of **\$4,837,000**, a difference of **\$533,000**. However, of this **\$533,000** it is proposed to transfer **\$407,000** to 2008/09. Effectively this means an overall saving against the 2007/08 budget of **\$126,000**.

The main reasons for spending less than the budget prior to 30 June 2008 are:

- (1) Deferral of the project to construct an emergency water supply pumping station in Whitehead Road for the Karori zone because Capacity (Wellington Water Management) on behalf of Wellington City Council (WCC) prefers an alternative method which is more expensive and still under negotiation.
- (2) Delay in commencing the proposed new Central Business District (CBD) reservoir because of a lack of a funding commitment from Capital and Coast District Health Board (C&CDHB).
- (3) Deferral of detailed investigation into a new water source pending completion of the consultation process.

- (4) Underspending of equipment replacement budgets for the water treatment plants. These budget items are in part a contingency provision to fund the replacement of equipment should it fail, or the purchase of equipment that requires urgent replacement before it fails. So far this year the failure rate has been less than anticipated.

## **4. Underspending expected in 2007/08**

### **4.1 Summary**

Underspending totalling approximately **\$1,258,000** is forecast within the 2007/08 capital works programme for a variety of reasons, as described below. A detailed list of projects where under spending is expected is contained in Attachment 1.

### **4.2 Reduced scope**

The scope of a number of projects has been reduced, resulting in a saving of approximately \$365,000.

Approximately 50 percent of this saving is associated with budgets allocated to equipment replacement/refurbishment at the treatment plants, which were set at 2 percent of the equipment value. However, the need to replace equipment this year has been less than anticipated.

In addition, more detailed analysis has shown that upgrading the distribution system to facilitate higher flow rates in the future will be less costly than anticipated. The scope of the telemetry system renewal and hazard protection work has also been reduced.

### **4.3 Deferral**

At the time the 2007/08 budget was prepared it was expected that some preliminary design work on a preferred option for a new water source would be possible before June 2008. However, delays in completing investigation work and the complexity of the consultation processes will limit this to a feasibility study of the proposal to raise the level of the Stuart Macaskill Lakes.

The installation of power factor correction equipment at Waterloo has also been deferred pending the resolution of technical issues and a review of the cost and benefits.

### **4.4 Projects delayed**

A number of projects have been delayed and it is proposed to transfer the balance of the funding available (**\$407,000**) to 2008/09. An explanation regarding these transfers is given below.

Preliminary design of a proposal to install a pumping station in Whitehead Road to provide an emergency supply to Karori has been completed. However, Capacity has suggested an alternative approach involving a new pipeline all the way to the Messines Road reservoir. A response to this request is being considered. The resulting delay means that it

is unlikely that the project will proceed past the investigation phase this financial year.

The proposed Terminal Reservoir in Prince of Wales Park (CBD Reservoir) has been further delayed by the lack of a funding commitment by the Capital and Coast District Health Board to this joint project with Greater Wellington Regional Council (GWRC) and WCC. It is unlikely that any expenditure will occur this year. The option of a joint WCC/GWRC project next financial year is to be discussed with WCC as the C&CDHB funding commitment has not been confirmed.

It was expected that new air valves would be purchased for installation on the Kaitoke to Karori main. However obtaining supply quotations has taken longer than expected, and this, together with longer than anticipated delivery times means it is unlikely these valves will be supplied before 30 June 2008.

#### **4.5 Direct cost savings**

Direct cost savings on a number of projects are forecast to result in savings of **\$313,000**. A list of these projects is contained in Attachment 1.

### **5. Projects where additional costs are expected**

#### **5.1 Summary**

The forecast of additional costs totals **\$724,000**. There are a variety of reasons for the expected additional costs as set out below. A detailed list of projects on which additional expenditure is expected is contained in Attachment 1.

#### **5.2 Projects where the scope has expanded**

An annual budget is provided to replace valves that fail or require urgent replacement for other reasons. This year expenditure on these replacements is forecast to be \$17,000 in excess of the budget.

An annual budget is provided to fund the replacement of meters that fail. Early in 2007 the Thorndon meter failed. This is a large meter located at some depth in Thorndon Quay, which is heavily trafficked and congested with other services. The opportunity was taken to build a structure around the meter so that any future meter replacement will be straightforward. The cost of this replacement was approximately \$100,000, with about half being spent in 2007/08, exceeding the meter replacement budget by \$19,000.

The water supply system relies heavily on computerised control systems, and an annual budget is held for upgrades and replacements. A high level of replacements and upgrades has been required this year because of failures and obsolescence, and the budget is forecast to be exceeded by \$66,000.

Each year a budget of approximately \$300,000 is allocated for minor miscellaneous projects, usually minor upgrades regarded as having significant benefits. The current forecast against this budget is \$469,000. The major items of expenditure are as follows:

- Extensions to the Waterloo carpark (\$50,000)

- Recladding parts of the Wainui treatment plant (\$125,000)
- New pipework at the old Karori pumping station (\$62,000)
- Upgrading the air valves through Wainui to help protect the 124 year old cast iron pipe from damage due to pressure fluctuations.
- Renewing the power supply to the Aro reservoir required as a consequence of the demolition of the old Karori pumping station (\$30,000).
- Upgrading the SYM model to include the Upper Hutt aquifer (\$28,000)

Additional emergency supply points have been installed to provide customers with water if reservoirs are disrupted (\$35,000).

### 5.3 Projects where additional costs are expected

Replacement of the Te Marua Water Treatment Plant control system is a major project running over three years. Despite careful and thorough planning, it has become apparent as the project progresses that information about the plant and its control logic is incomplete or inaccurate, and that replacement of some items not previously included will now be necessary. Currently over expenditure in 2007/08 is forecast to be \$260,000.

Additional unexpected work has been necessary to complete the upgrading of the lime system at Waterloo treatment plant (\$49,000).

The cost of completing 2006/07 projects is forecast to be \$85,000. It is difficult to perfectly match the programming of all projects to the financial year and inevitably there is a need to fund the completion of a few projects from the previous financial year.

## 6. Summary of forecast savings and additional expenditure

Summary of projected savings and additional expenditure by asset type

Category	Budget \$	Forecast \$		Variance	
		Forecast to 30/6/2008	Forecast including re-budget	Forecast to 30/6/2008	Forecast including re-budget
Source projects	155,000	109,000	109,000	-30%	-30%
Treatment plant projects	1,945,000	1,822,000	1,822,000	-6%	-6%
Pipeline projects	420,000	247,000	347,000	-41%	-17%
Pumping stations and reservoirs	387,000	80,000	387,000	-79%	-%
Monitoring and control projects	880,000	925,000	925,000	+5%	+5%
Minor works, seismic protection and completion of 2006-2007 projects.	850,000	1,039,000	1,039,000	+22%	+22%
New sources	200,000	82,000	82,000	-59%	-59%
<b>Total</b>	<b>4,837,000</b>	<b>4,304,000</b>	<b>4,711,000</b>	<b>-11%</b>	<b>- 2.6%</b>

## 7. Comparison with the half year review

Summary of projected savings and additional expenditure by asset type compared to forecasts made at the half year review in December 2007.

Category	Budget \$	Full year expenditure \$		Variance
		Forecast half year review	Forecast third quarter review	Half year to third quarter
Source Projects	155,000	125,000	109,000	- 13%
Treatment Plant Projects	1,945,000	1,544,000	1,822,000	+ 18%
Pipeline Projects	420,000	340,000	247,000	- 27%
Pumping Stations and Reservoirs	387,000	70,000	80,000	+ 14%
Monitoring and Control Projects	880,000	929,434	925,000	- 0.5%
Minor Works, Seismic Protection and completion of 2006-2007 projects.	850,000	836,895	1,039,000	- 24%
New sources	200,000	100,000	82,000	-18%
<b>Total</b>	<b>4,837,000</b>	<b>3,945,329</b>	<b>4,304,000</b>	<b>+9%</b>

Note: The above comparisons are based on forecast expenditure to 30/6/2008 rather than against the 2007/08 budget, that is, rebudgeted funding is not included.

## 8. Conclusion

Underspending of approximately \$1,258,000 is forecast for the capital works programme, principally through reductions in scope, project delays (funds to be re-budgeted) and cost reductions.

Additional costs of approximately \$724,000, up from \$256,000 forecast in December, have been identified as a result of increased scope and increased costs

The net result is a forecast under spend of approximately \$533,000 in 2007/08.

However, it is proposed to transfer \$407,000 of this funding into the 2008/09 financial year to fund uncompleted or delayed 2007/08 projects.

## 9. Recommendations

*That the Committee:*

- (1) **Receives** the report and notes its contents.
- (2) **Recommends** to Council that \$407,000 be transferred from the 2007/08 Wholesale Water Capital Works Programme to the 2008/09 capital works programme to fund the completion of projects for which the funding was assigned.

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**Attachment 1: 2007-2008 Capital Works Programme Details of Expected Changes**