

8. OCEAN OUTFALL PROJECT COST ESCALATION

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PURPOSE OF REPORT

1. The purpose of this report is to advise the Council that we have reviewed our cost projections for the Ocean Outfall Project and that to meet level of service and regulatory requirements, additional funding is recommended.

EXECUTIVE SUMMARY

2. The Council has submitted its application for consents to construct, operate, and maintain a 3 km ocean outfall, pump station and associated landline. To ensure sufficient funding was available for the project a review of project costs was undertaken in February 2005.
3. The review has identified shortfalls in capital funding for completion of the Stage 1 (consultation, technical investigations, preparation of AEE, consenting etc) and Stage 2 (design and construct phase). Stage 1 is already well underway.
4. An additional \$0.95m is recommended for Stage 1 and an additional \$23.83m is recommended for Stage 2 of the project.
5. The revised budgets are estimates with an accuracy for Stage 2 of -10% and +25% and the Stage 2 estimate could escalate further prior to the award of the design and build contract.
6. The reasons for the shortfalls are a mix of lack of rigour in initial budgeting (Stage 1 and pump station capacity) and current market conditions (global materials and local construction costs).

FINANCIAL AND LEGAL CONSIDERATIONS

7. The revised estimates were formulated from actual tender figures for the construction of Pump Station 11 (a pump station of similar size to the Ocean Outfall pump station. The tender for construction was received in December 2004) and figures received from Waimakariri District Council for the construction of their ocean outfall (tender figures received in February 2005).

Stage 1 AEE	Previous Years	2004/05	2005/06	2006/07	2007/08	2008/09	Project Total
Original Budget	\$1.39m	\$0.55m	\$0.41m	\$0.31	\$0	\$0	\$2.66m
Revised budget February 2005	\$1.42	\$1.39	\$0.8	\$ 0	\$ 0	\$ 0	\$3.61m

Stage 2 D&B	Previous Years	2004/05	2005/06	2006/07	2007/08	2008/09	Project Total
Original Budget	\$0	\$0	\$0 m	\$20	\$25	\$5	\$50.0m
Revised budget February 2005	\$0	\$0.5	\$2.5	\$28.5	\$35.0	\$7.33	\$73.83m

8. The above budget includes a total contingency for Stage 2 work of \$ 9.742m (13.2% of revised estimate). The revised numbers for Stage 1 and 2 are still estimates (with an accuracy of -10% and + 25%) and costs could rise further if the current market conditions prevail. The Council will not be able to obtain more certainty on the total project costs until the tenders are received for the design and build contract for the Stage 2 works.
9. Currently the 2004/14 LTCCP (Volume 2 page 109) contains funding for project green edge at the CWTP in years 2008/09 to 2010/11. This project was envisaged when the Council was anticipating discharging to the estuary. Given that the discharge is now planned as an ocean discharge the Green Edge concept plans could be revisited and surplus capital diverted to fund the additional capital costs of the Ocean Outfall. LTCCP Volume 3, page 62 states that the entire cost of the Ocean Outfall (including growth component of 10% of cost) will be recovered through rates.

STAFF RECOMMENDATIONS

It is recommended that:

- (a) The Council approve additional capital funding of:
 - \$0.95m for the resource consent hearing and appeal processes (Stage 1); and
 - \$23.43m for the design, construction and commissioning of the ocean outfall, associated landline and pump station in line with the estimated project cashflow.
- (b) Staff prepare a report detailing the options and associated capital costs for the works to be undertaken in the CWTP Green Edge project. Surplus capital funds from the Green Edge Project could then be diverted into funding the Ocean Outfall Project.
- (c) Staff review the current policy of funding the growth component (10% of project cost) of the Ocean Outfall Project through rates as part of the Contribution Policy review currently underway.

BACKGROUND ON OCEAN OUTFALL PROJECT

10. The Ocean Outfall Project was formulated after the Environment Court did not renew the consent for continued discharge of treated effluent from the CWTP to the Estuary on terms suitable to the Council. The Council resolved on the 29 July 2004 to build a 3 km ocean outfall line with no artificial UV disinfection.

The project's key benefits are:

- (a) improvement to level of service (90% of cost).
- (b) allowance for future growth (10% of cost).

11. The Council lodged its applications for Project Resource Consents on 17 December 2004, and submissions on the AEE Report close on the 5 April 2005. It is anticipated that a hearing on submissions will commence in June 2005. Concept design work has commenced on the Ocean Outfall pipeline and pump station.

12. A new Unit Manager, Mark Christison, was appointed to City Water & Waste in November 2004. Mark's immediate background was General Manager Hutt City Water Services where he was Project Director for the \$60m DBO (design, build, operate) construction contract for the new Treatment Plant. Mark instigated a review of the financial projections for this project in December 2004.

13. With regard to Stage 1 (consultation, technical investigations, preparation of AEE, consenting etc) which is already underway, the following shortfalls were identified:

▪ Processing consent application (ECan and other Councils, including Christchurch City Council.	\$200k
▪ External legal support for hearing and negotiating with interested parties	\$300k
▪ Section 92 requests	\$100k
▪ Existing cost overruns	\$150k
▪ submitting AEE and restoring contingency (\$20k)	
▪ environmental investigations, consultation and provision of public information	\$70k
▪ Arrangements already in place with external advisers.	<u>\$130k</u>

Total **\$950k**

14. While budgeting for such work is fraught with difficulty, it is apparent that extra funding is required both to cover existing cost overruns and in anticipation of additional costs.

15. With regard to Stage 2, the increased estimates are due to two main factors:

- Movements experienced globally in the cost of materials and locally in construction costs (eg Waimakariri District Council (WDC) Ocean Outfall increased from \$12m to \$17m (42%) in two years).
- The pump station capacity required was underestimated. An in-depth analysis of storm events indicated that significantly greater capacity will be required. Note: this concept design is about to go through a value engineering study, but it is not envisaged that major savings will be identified.

16. The table below illustrates the variation between the revised capital estimate for the Stage 2 works (design and construction of the project works) and the original budget (July 2004). The variance has been calculated against the budget figures put to and approved by Council in April 2004.

Budget Line Item	Estimate Feb 2004 \$000's	Estimate 2005 \$000's	Variance \$000's	Reason for Increase
City Water & Waste Administration	950	1,350	400	Increased project legal provision from \$100k to \$500k.
Professional fees	3,315	4,544	1,229	Addition of technical advice and supervision of Design and Build Contract. Previously no allowance for this. Current URS contract ends at the award of the D&B tender.
Design and Build Contract Pump Station	2,698	7,300	4,602	Pump Station capacity increased from 3.9m ³ /sec to 6m ³ /sec. Change in specification came from storm event analysis. Revised price based on Pump Station 11 tender received in November 2004. Normalised for this application.
Landline – line from pump station to beach.	6,722	10,174	3,452	Price of pipe has risen 60% from previous estimate. Pipeline laying prices very hot in Canterbury at present because of large amount of work in the market. Prices based on rates seen on WDC and city based projects.
Marine pipeline and outfall	36,313	50,460	14,147	Increase in pipeline costs and figures based off tenders received by WDC for their outfall.
Total	\$49,998	\$73,828	\$23,830	47% increase in 18 months

OPTIONS

17. The Council has the following options:

Option 1 – Do not allocate the additional funding:

Pros	Cons
Nil	<ul style="list-style-type: none"> The Council will not meet its resource consent commitments to have the new outfall operational by September 2009 as detailed in its current consent with ECan. This could lead to possible fines and abatement notices. The Council will not deliver on the level of service commitments published in the LTCCP and this will lead to unhappy customers.

Option 2 – Approve additional funding as requested:

Pros	Cons
<ul style="list-style-type: none"> The Council will deliver on its resource consent commitments. The Council will deliver on its level of service agreements. Rescoping of the Green Edge project at CWTP (budget \$9.18m between 2008-11) may free up capital to fund the Ocean Outfall project. 	<ul style="list-style-type: none"> Additional capital funding of \$0.95m required for the Stage 1 work (2005-06 budget). Additional capital funding of \$23.83m required for the Stage 2 work (spread over the period 2005-06 to 2008-09).

PREFERRED OPTION

18. Option 2 is the preferred and recommended option.