

Essential Services Commission
**Melbourne Water Special
Drainage Areas 2013 Price Review
- additional review**

Final Report

ECO-REP-0001_0

Final | 04 March 2014

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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1 Executive Summary

A review has been undertaken of the actual and proposed capital and operating expenditure for two of Melbourne Water's Special Drainage Areas, namely the Patterson Lakes Tidal Waterways and Quiet Lakes. The summary recommendations of the review are presented in the following points below with further detail presented in the following chapters of this report.

Overall

A high level review of capital and operating expenditure for the Special Drainage Areas has been undertaken. The review considered a number of issues and received some additional supporting documents from Melbourne Water. As a result we are satisfied that the proposed capital and operating costs are reasonable.

Tidal Waterways

Actual and proposed capital expenditure for the Tidal Waterways has been reviewed and it is determined that no specific adjustments to proposed capital expenditure are required. In particular:

- Whilst normally we might expect to see the average actual unit cost of the Jetty Replacement program reducing over time, this conclusion cannot be drawn from the data supplied given the variance in the jetty sizes and location specific differences in construction costs. In addition, the jetties are of a standard design and are being constructed by a highly experienced contractor with a well-established method so the likely efficiencies gained would be external to the construction process.
- Proposed expenditure on the Jetties Replacement program is considered reasonable and within the expected average unit rates.
- The Independent Review recommended removal of the Patterson River depot and this is likely to negatively impact prices for the Jetty Replacement program and should be delayed until the completion of the program.

Actual and proposed operating expenditure for the Tidal Waterways has been reviewed and it is determined that no specific adjustments to proposed operating expenditure are required. In particular:

- Jetties maintenance expenditure has reduced slightly however an allowance for asset inspections (previously in a separate category) has been added.
- Program management expenditure includes the cost of labour as a proportion of the costs of the Regional Maintenance Co-ordinator and a jetties specific person. The expenditure allowance for the latter role covers only overheads and whilst we do not agree with the methodology, the quantum of expenditure is considered reasonable.
- The allowance for public liability insurance is considered reasonable.

Quiet Lakes

No specific recommendations or adjustments are required.

2 Introduction

2.1 Background

The Essential Services Commission (the Commission) is reviewing Melbourne Water's 2013 pricing submission for the Patterson Lakes Special Drainage Areas¹ consisting of:

- Patterson Lakes Tidal Waterways; and
- Patterson Lakes Quiet Lakes.

The Commission has engaged Arup to assist in undertaking particular components of this review.

2.2 Scope of works

The scope of this review was to advise the Commission on whether Melbourne Water's actual and proposed operating and capital expenditure, in relation to the Special Drainage Areas, in the pricing submission is appropriate and efficient.

In providing this advice, the following was taken into account:

- obligations on Melbourne Water;
- past trends in expenditure;
- whether forecast expenditure is reasonable compared with typical industry rates; and
- factors such as input costs, growth and productivity improvement.

In particular, the review comprised a high-level review of capital and operating expenditure in each of Special Drainage Areas with a focus on capital expenditure for jetty related works in the Tidal Waterways and with particular regard to the outcomes of the recent Independent Review on Patterson Lakes.

The expected outputs of the review are:

- Draft summary report – preliminary views on expenditure and identification of any further work required;
- Melbourne Water comments – on the draft summary report; and
- Final report – final view and recommendations on expenditure.

2.3 Approach to review

Our approach can be summarised in the following five steps:

1. Reviewed available data – includes Melbourne Water's submission to the Commission, the previous submission made to the Commission in mid-2012 related to the Special Drainage Areas and its accompanying consultant's report, prepared by SECG, for the Commission.

¹ Pricing Proposal for Patterson Lakes Special Drainage Area, Melbourne Water

2. Conducted interviews with Melbourne Water – to explore, in more detail, the proposed capital and operating expenditure, and a historical look, that is, the actual expenditure. These interviews sought to identify the basis and drivers for the proposed expenditure, the comparison of planned and actual expenditure, and the reasons and justification for any project delays. In addition, the interviews focussed on customer consultation processes conducted for the jetty replacement works and the dredging works.
3. Assess and analyse the data – the analysis sought to ensure that the basis for the proposed capital and operating expenditure is consistent with the principles outlined in the scope of works. Historical expenditure was assessed to determine whether works originally proposed have been completed, deferred or cancelled. Proposed expenditure was specifically assessed for efficiency and the levels of precept area customer support, specifically within the context of the Independent Review outcomes.
4. Prepared a draft summary report – outlining the preliminary findings of the review process and identifying whether any additional work or investigation is required. The draft report will be submitted to the Commission and to Melbourne Water for comment.
5. Prepare a final report (this report) – incorporating, where relevant, the comments received on the draft report, and undertaking any additional analysis required, a final report will be prepared for submission to the Commission. This report will outline the final view on the proposed and historical expenditure and revenue figures and will provide any recommendations relevant to the findings.

2.4 Information Sources

Figures quoted for in this report have been sourced from Melbourne Water's submission². Supporting information has been provided for review in response to requests made during our interview with Melbourne Water. In addition, previous Commission determinations and consultant's reports (SECG 2011³, 2012⁴) were consulted to provide historical context for capital works projects.

²Ibid

³Melbourne Water Special Drainage Areas 2011-12 Price Review, Final Report, Strategic Economics Consulting Group

⁴Melbourne Water Special Drainage Areas 2012-13 Price Review, Final Report, Strategic Economics Consulting Group

3 Results of Analysis

3.1 Tidal Waterways

3.1.1 Actual Capital Expenditure

Actual capital expenditure in the Tidal Waterways for 2011/12 is presented in Table 1 below. Note that Melbourne Water has indicated that the actual expenditure figures below have been reduced by the revenue which was collected under the former precept rate.

Table 1 Actual Capital Expenditure for Tidal Waterways 2009/10 to 2012/13

Tidal Waterways Capital Expenditure (Real \$12/13)	2009/10 Actuals	2010/11 Actuals	2011/12 Actuals	2012/13 Actuals	Total Actuals
Jetty Replacement - Timber	449,922	188,692	468,490	830,000 ¹	1,937,104
Jetty Replacement - Concrete	-	1,140,503	885,573	1,891,290 ¹	3,917,366
Subtotal Jetty Replacement	449,922	1,329,195	1,354,063	2,721,290	5,854,470
Dredging Feasibility Study	-	-	-	823,907	823,907
Total Capital Expenditure	449,922	1,329,195	1,354,063	3,545,197	6,678,377

Notes:

1. Melbourne Water provided updated actuals for 2012/13 in response to our interview. However these updated figures are greater than those provided in Melbourne Water's pricing submission and those included in the Commission's pricing model and have therefore not been included here.

Direct comparison of Melbourne Water's reported actual jetty replacement capital expenditure figures for 2009/10 to 2012/13 to planned expenditure provides an invalid result given that the reported actual expenditures have been reduced by the amount of revenue collected under the former precept rate.

Nevertheless, it is interesting to note that total planned jetty replacement expenditure for this period was approximately \$8.2 million which implies a significant underspend across the period. This correlates with results from the 2012/13 review of the Tidal Waterways expenditure which highlighted delays in construction works.

Further details on actual jetty replacement expenditure for the period were provided by Melbourne Water in response to our interview. This additional detail shows the number of jetties replaced in each year against the actual expenditure and provides an indicative price per jetty for each year. These figures are presented in Table 2 on the following page.

Melbourne Water has, as a result of extensive community consultation and negative feedback, determined to cancel the dredging program related to the jetty replacements. The remaining actual expenditure for this work relates to a feasibility study conducted to identify the required dredging works. The study results, including a detailed map of jetty locations and channel depths identifying areas likely to require dredging, have been transferred to the residents for unlimited use. Melbourne Water is seeking to recover the cost of the study via capitalisation of the cost and recovery over a period of 20 years.

Table 2 Jetty Replacement Program Capital Profile 2009/10 to 2013/14

Year	Jetty Type	Spend	No. Jetties Constructed	Average cost per jetty
2009/10	Timber	\$449,922	7	\$64,275
2010/11	Concrete	\$1,140,503	27	\$42,241
	Timber	\$188,692	10	\$18,869
2011/12	Concrete	\$885,573	40	\$22,139
	Timber	\$468,490	12	\$39,041
2012/13	Concrete	\$1,908,620	38	\$50,227
	Timber	\$1,103,762	25	\$44,150
2013/14 YTD*	Concrete	\$1,085,077	26	\$41,734
	Timber	\$116,219	7	\$16,603

*YTD is as at 17/2/2014

Melbourne Water identified a number of key points in relation to using these average figures:

- Since the start of the program until now 131 Concrete jetties and 61 Timber jetties have been constructed and there are 91 jetties that still require replacement
- Total cost to the Jetty Service Charge to date is \$7,346,859
- To date there has been an uptake of approximately 70% Concrete jetties to 30% Timber jetties
- The average cost per jetty will vary from jetty to jetty due to the size of each jetty and therefore year to year depending on the size of jetties built in that given year. As there are single berth, 2 berth, 4 berth, and right up to 20 berth jetties, the cost of individual jetties will vary significantly.
- The above Concrete jetties Capital Expenditure excludes the private contribution residents pay to upgrade to a concrete jetty. The private contribution costs are calculated on a case by case basis.
- 2012/13 Capital Expenditure cost per the above profile totals \$3,012,382, this represent a difference of \$291,092 to the 2012/13 Capital Expenditure shown in the Patterson Lakes Pricing Proposal model, the difference is the result of final costs for 2012/13 coming in from the sub-contractors past the date the model was developed and when pricing went out for community consultation. However it should be noted this difference is only a profiling of costs across two periods and does not impact on the total spend of the whole program or pricing.

Whilst normally we might expect to see the average cost of the jetties reducing over time, this conclusion cannot be drawn from the above data given the variance in the jetty sizes and location specific differences in construction costs. In addition, the jetties are of a standard design and are being constructed by a highly experienced contractor with a well-established method so the likely efficiencies gained would be external to the construction process.

3.1.2 Proposed Capital Expenditure

Proposed capital expenditure for 2013/14 to 2015/16 comprises entirely the jetty replacement program, as shown in Table 3 below.

Table 3 Proposed Capital Expenditure for Tidal Waterways 2013/13

Tidal Waterways Capital Expenditure (real \$2012/13)	2013/14	2014/15	2015/16	Total
Timber Jetty Replacement	817,880	701,040	-	1,518,919
Concrete Jetty Replacement	1,912,120	1,638,960	-	3,551,081
Total Expenditure	2,730,000	2,340,000	-	5,070,000

Melbourne Water has indicated that there are approximately 91 jetties that still require replacement over the forthcoming period. It is presumed that this excludes the jetties already replaced in 2013/14 (refer Table 2). Given this number and the consistent proportion of timber (32%) to concrete (68%) jetties being replaced, the average prices per jetty for the forthcoming period have been calculated to be consistent with the averages and variations seen over the period from 2009/10 to 2013/14.

Melbourne Water has indicated that it is pursuing options to decrease the costs of the jetties to customers still waiting for replacements. These options include:

- Activity scheduling to reduce time moving the construction barge and equipment
- Use of the Patterson River depot to deliver materials and collect waste
- Investigation of rezoning land specific to the channels to reduce the need for planning permits for each jetty. Melbourne Water estimate that this could save approximately \$100,000 from the project and reduce the time to deliver the project but, this would require government approval.

It is noted, however, that the findings of the Independent Review recommended the closure of Melbourne Water's depot on the Patterson River. Whilst no specific time frame was recommended in the Review, comments were made regarding the intended temporary nature of the depot and its function purely for the floodgates replacement project with a recommendation to remove the depot and the earliest opportunity. This may have the effect of increasing costs for the jetty replacement program, but such costs have not been estimated.

In feedback to our draft summary report, Melbourne Water clarified that the depot current does not add to the cost of the Jetty Replacement program but is committed to closing the depot as soon as the program is completed. The early closure of the depot would likely increase costs associated with the Jetty Replacement program, including:

- Decommissioning of the existing depot
- Increases in material handling costs given the lack of alternative locations
- Increases in transportation costs for the same reason above
- Additional traffic management costs for alternative locations

Melbourne Water has undertaken minor works to improve the aesthetics of the current deopot and will continue to work with any impacted residents.

3.1.3 Summary on Capital Expenditure

Actual and proposed capital expenditure for the Tidal Waterways has been reviewed and it is determined that no specific adjustments to proposed capital expenditure are required.

3.1.4 Operating Expenditure

Actual and forecast operating expenditure in the Tidal Waterways for 2012/13 to 2015/16 is presented in Table 4 below.

Table 4 Actual and Forecast Operating Expenditure for Tidal Waterways from 2012/13 to 2015/16

Tidal Waterways Operating Expenditure (real \$2012/13)	2012/13 Actuals	2013/14 Forecast	2014/15 Plan	2015/16 Plan
Jetties Maintenance	30,500	30,500	30,500	30,500
Maintenance coordinator	18,219	18,219	18,219	18,219
Office Overheads	35,957	35,957	35,957	35,957
Public Liability Insurance	10,000	10,000	10,000	10,000
Total Expenditure	94,676	94,676	94,676	94,676

The proposed expenditure is entirely related to the operation and maintenance of the new concrete and timber jetties replaced as part of the corresponding capital works program. A review of previous expenditure for jetty maintenance indicates that:

- Jetties maintenance for 2011/12 and 2012/13 totalled \$25,000
- Maintenance co-ordinator allowance from 2009/10 to 2012/13 was \$70,968
- No direct allowances were made for Office Overheads
- No direct allowances were made for Public Liability Insurance.

The jetty replacement program involves a like for like replacement process without any additional services provided at each jetty. With the replacement of jetties in disrepair to new jetties, it would be expected that the maintenance costs would decrease. It is recognised that the original estimate of \$25,000 likely did not include a full range of maintenance activities (given that the jetties were scheduled for replacement) however it is still expected that the new jetties would require less ongoing maintenance, particular in the early years of the life of the jetties.

In feedback to our draft summary report, Melbourne Water has clarified the build-up of the jetties maintenance costs indicating that the \$30,500 includes a \$10,500 annual inspection cost that was previously included in a separate category of works (civil works and asset monitoring). This means the annual allowance for maintenance has decreased (to \$20,000 per year) as per our expectations.

The allowance made for the Maintenance Co-ordinator in previous years included all assets within the Patterson Lakes Special Drainage Area and was presumably fully allocated. In feedback to our draft summary report, Melbourne Water clarified that the previous allowance was based on a total annual salary for the Maintenance Co-ordinator of \$100,000, allocated across the Tidal Waterways and the Quiet Lakes, and Melbourne Water further indicated that this annual salary has not changed in the past couple of years. This is consistent with the allocation method used for the current submission

Melbourne Water's previous submissions have not included direct allowances for Office Overheads. In addition the majority (85%) of the proposed allowance relates to the Jetty Replacement Program Co-ordinator, a position which is already included in the capital costs for the Jetty Replacement Program. We have no issue with capitalising the costs of this co-ordinator position; however we would expect that all costs associated with this position are capitalised with this including any overhead or other costs.

In feedback to our draft summary report, Melbourne Water has clarified that the proposed overheads allowance for the Jetty Replacement Program Co-ordinator applies to a proposed ongoing operational role for the Co-ordinator. This role will be a fulltime position to co-ordinate the operation and maintenance of the jetties to provide the expected level of customer service. Melbourne Water is not seeking to recover the salary costs of this position, only the related overheads (which represent around 30% of the salary).

Whilst we do not agree with the cost allocation and recovery methodology used (we would have expected the costs to be related to the Co-ordinator's salary and their time, not their overheads), we acknowledge that the likely quantum of costs allocated could be similar (if Melbourne Water were to allocate 30% of the total salary and related overheads to the ongoing role).

Melbourne Water has indicated, in our interviews, that they sought legal advice on their liability position in relation to the new jetties. The outcome of this legal advice was a recommendation for Melbourne Water to take out specific public liability insurance to cover any incidents in relation to the new jetties. A quote sought through Melbourne Water's insurance agents has led to a \$10,000 per year allowance being included in the operating expenditure. We believe this expenditure is reasonable and should be recoverable.

3.1.5 Summary on Operating Expenditure

Actual and proposed operating expenditure for the Tidal Waterways has been reviewed and analysed and based on supporting information supplied by Melbourne Water, we are satisfied that the costs included are reasonable with no specific adjustments required.

3.2 Quiet Lakes

All capital and operating expenditure previously allocated to the Quiet Lakes is now being covered by the Waterways & Drainage charge. The costs of water quality works involving a bore pump water trial are currently being covered by the Waterways & Drainage charge. Melbourne Water has committed to

consulting with the residents of Quiet Lakes once the trial has been completed to determine the follow up works required. Any additional water quality works are likely to be strictly on a user-pays basis. No review of actual or proposed capital or operating expenditure is required at this time.