Melbourne Water Special Drainage Areas 2011-12 Price Review

Final Report

Essential Services Commission

8 June 2011

strategiceconomicsconsulting group

TABLE OF CONTENTS

1. Executive Summary

A review has been undertaken of the proposed operating expenditure for three Special Drainage Areas, namely the Tidal Waterways, Quiet Lakes, and the Koo Wee Rup Flood Protection District. The review assessed the following points and arrived at the findings shown for each point.

- Appropriateness of proposed expenditure – the review found that the proposed expenditure for 2011/12 generally reflected the previously approved expenditure for 2010/11 and on review was determined to be appropriate and reasonable.
- Efficiency of operating expenditure – the review found that the actual and proposed operating expenditure is delivered through a long term contract awarded through a competitive tender process with appropriate negotiation over specific rates, fees and other charges. The efficiency of the expenditure is therefore established subject to continued review of best overall value for money over the term of the contract.
- Process for reporting actual expenditure – the review found that operations and maintenance tasks are primarily undertaken by Thiess Services under a long term contract. There is an appropriate process of identifying work requirements, use of unique identifiers for costs associated with the works, and an internal checking process to reduce the risk of human error. The use of unique identifiers also reduces the potential for unintended cross subsidies.
- Process for reporting revenue – the review found that sufficient details are provided by South East Water to correctly identify properties and property values in the Special Drainage Areas and allow Melbourne Water to calculate and account for the correct revenue.

2. Introduction

2.1 Background

The Essential Services Commission (the Commission) is reviewing Melbourne Water's 2011-12 pricing submission for Special Drainage Areas consisting of:

- Patterson Lakes Tidal Waterways
- Patterson Lakes Quiet Lakes; and
- Koo Wee Rup – Longwarry Flood Protection District.

The Commission has engaged Strategic Economics Consulting Group to assist in undertaking particular components of this review.

2.2 Scope of works

Specifically, the review encompassed:

- The review of actual operational expenditure and efficiency of expenditure for each of the drainage areas; and
- Confirmation if revenue and operational expenditure has been appropriately accounted for.

The intention of the review was to provide advice to the Commission on whether the proposed expenditure in the pricing submission met the following criteria:

- appropriate in relation to key drivers and obligations;
- robust with adequate supporting information and systems;
- reasonable compared to typical rates used in the industry; and
- reasonable compared to historical trends allowing for various escalatory factors.

In providing advice, the following issues were taken into account:

- guidance provided by the Commission;
- information set out in Melbourne Water's submission and gained through on-site interviews with relevant staff;
- readily available information to assist in performing the review; and
- the experience of the proposed team.

The outputs of the review are:

- Preliminary summary – preliminary views on proposed expenditure and identification of any further work required (communicated 18 May 2011);
- Draft report – submitted 27 May 2011; and
- Final report – final view and recommendations (submitted 8 June 2011).

In addition to the scope of work identified above, the Commission sought comment on a number of submissions made by third parties in relation to the Commission's review. In particular, a review of key comments made in the submissions was undertaken.

2.3 Approach to review

Our approach can be summarised in the following five steps:

1. Review available data – includes Melbourne Water's submission to the Commission and supporting data, the previous submission made to the Commission in mid 2010 related to Paterson Lakes and its accompanying report.
2. Conducted interviews with Melbourne Water – to explore, in more detail, the forward look, that is, the proposed operating expenditure and nominated revenue, and the rearward look, that is, the historical actual expenditure and revenue figures. The interviews sought to identify the basis and drivers for the proposed expenditure, the details of revenue collected to fund the works undertaken, and the comparison of planned and actual expenditure. Preliminary findings, based only on the issues identified at the interviews, were then communicated to the Commission.
3. Assess and analyse the data – the analysis sought to ensure that the basis for the proposed operating expenditure was sound and that expenditure had been appropriately calculated. For proposed revenue figures, the analysis sought to confirm that projections were appropriate and to identify the level of under or over recovery of expenditure. The ring-fencing of expenditure and revenue related to the Special Drainage Areas was also assessed through a review of the systems in place that facilitate this allocation. Historical expenditure was assessed to determine whether works proposed have been completed, deferred or cancelled. Historical revenue was assessed to determine the levels of under or over recovery.
4. Prepare a draft report – this report outlined the draft findings of the review process and identified whether any additional work or investigation is required.
5. Prepare final 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.

3. Results of Analysis

3.1 Actual operating expenditure

3.1.1 Expenditure for 2009/10

Operating expenditure within the Patterson Lakes and the Koo Wee Rup Flood Protection District is allocated to the general categories shown in Table 1 below.

Table 1 Operating Expenditure Categories

Tidal Waterways	Quiet Lakes	Koo Wee Rup District	
Tidal gates maintenance	General maintenance	Precept Drains Carrier Drains	Channel maintenance
General maintenance	Newsletter	Precept Drains	Floodgate maintenance
Newsletter	Water quality testing	Precept Drains	Office maintenance
Jetty maintenance	Fish removal	Precept Drains Carrier Drains	General repairs
Contract management fees	Contract management fees	Precept Drains Carrier Drains	Management fees
Maintenance Co-ordinator	Maintenance Co-ordinator		

Note: Melbourne Water intends to further delineate General maintenance in the Quiet Lakes area into debris collection, weed spraying, and beach raking.

Planned, forecast and actual operating expenditure in 2009/10 for each precept area is presented in the following Tables 2 to 4.

Table 2 Planned, Forecast and Actual Operating Expenditure for Tidal Lakes 2009/10

Tidal Waterways	2009/10 Plan	2009/10 Forecast	2009/10 Actual
Tidal gates maintenance	$50,000	$67,601	$60,366
General maintenance	$260,000	$227,821	$217,909
Newsletter	$14,526	$14,526	$5,427
Jetty maintenance	$20,000	$18,405	$15,918
Contract management fees	$35,484	$50,296	$48,817
Maintenance Co-ordinator	$70,968	$70,968	$70,968
Total Expenditure	**$450,978**	**$449,617**	**$419,405**

Actual expenditure for 2009/10 was approximately seven per cent under the original budget. The largest variances (by quantum) from budget were in the general maintenance category ($42,091 or 16 per cent under budget) and in contract management fees ($13,333 or 38 per cent over budget).

Tidal gate maintenance expenditure was $10,366 or 21 per cent over budget. On first glance this might appear unusual given Melbourne Water's large capital investment in tidal gates replacement; however the tidal gate maintenance expenditure for this year did not include condition specific maintenance expenditure. Further a large proportion of the ongoing maintenance works occur independent of the gate's actual condition.

Table 3 Planned, Forecast and Actual Operating Expenditure for Quiet Lakes 2009/10

Tidal Waterways	2009/10 Plan	2009/10 Forecast	2009/10 Actual
General maintenance	$110,000	$98,339	$100,246
Newsletter	$5,474	$5,474	$2,234
Water quality testing	$10,000	$6,418	$10,000
Fish removal	$15,000	$7,500	$0
Contract management fees	$14,516	$19,560	$20,091
Maintenance Co-ordinator	$29,032	$29,032	$29,032
Total Expenditure	**$184,022**	**$166,323**	**$161,603**

Actual expenditure for 2009/10 was 12 per cent under budget. The largest variances (by quantum) were in general maintenance which was $9,754 or nine per cent over budget, in fish removal where none of the allocated $15,000 budget was incurred, and in contract management fees which was $5,575, or 38 per cent over budget.

Table 4 Planned, Forecast and Actual Operating Expenditure for Koo Wee Rup 2009/10

Koo Wee Rup District		2009/10 Plan	2009/10 Forecast	2009/10 Actual
Precept Drains	Channel maintenance	$388,000	$394,310	$378,200
Precept Drains	Floodgate maintenance	$75,000	$69,450	$56,100
Precept Drains	Office maintenance	$15,000	$17,580	$14,200
Precept Drains	General repairs	$30,000	$27,660	$27,600
Precept Drains	Management fees	$100,000	$98,438	$97,000
Total		**$608,000**	**$607,438**	**$573,100**
Carrier Drains	Channel maintenance	$310,000	$275,100	$243,500
Carrier Drains	General repairs	$10,000	$7,900	$8,800
Carrier Drains	Management fees	$60,000	$59,062	$58,300
Total		**$380,000**	**$342,062**	**$310,600**

Actual expenditure for 2009/10 was about 5.7 per cent under budget for the precept drains and about 18.3 per cent under budget for the carrier drains. In the context of the continuing over-recovery of revenue by Melbourne Water, this underspend does not assist in rectifying the issue. It is noted however that Melbourne Water is proposing to increase proposed maintenance expenditure for 2011/12 significantly to rectify some of this over recovery.

3.1.2 Summary

Actual expenditure for 2009/10 has been briefly reviewed and while overall the expenditure in each area was under budget, there is no indication that, overall, the expenditure is unreasonable. The expenditure was delivered under a competitively tendered, long term contract and as such can be considered efficient. It would be expected, however, that Melbourne Water monitors and balances the actual expenditure over a longer period to ensure that the residents are receiving the value of operations and maintenance expenditure for which they are paying.

3.2 Proposed operating expenditure 2011/12

Proposed operating expenditure for 2011/12 for each precept area is presented in the following Tables 5 to 7. Comparisons are made to the actual expenditure in 2008/09 (where available) and 2009/10 and the forecast actual expenditure for 2010/11, in order to assess the efficiency, or otherwise, of the proposed expenditure.

3.2.1 Proposed expenditure

Table 5 Proposed Operating Expenditure for Tidal Lakes for 2011/12 ($ nominal)

Tidal Waterways	2008/09 Actual	2009/10 Actual	2010/11 Forecast	2011/12 Plan
Tidal gates maintenance	$52,663	$60,366	$49,000	$49,000
General maintenance	$175,349	$217,909	$250,000	$250,000
Newsletter	$18,384	$5,427	$10,985	$14,526
Jetty maintenance	$29,230	$15,918	$20,000	$20,000
Contract management fees	$0	$48,817	$45,000	$45,000
Maintenance Co-ordinator	$68,482	$70,968	$70,968	$70,968
Civil Assets Monitoring				$20,000
Total Expenditure	**$344,108**	**$419,405**	**$445,953**	**$469,494**

The 2010/11 Forecast figures represent current actual expenditure (to date figure was reported) plus a forecast of remaining expenditure to 30 June 2011. These show an overall increase in expenditure from 2009/10 mainly resulting from increases in general maintenance (14.7% increase) offset by a decrease in tidal gates maintenance (18.8% decrease).

The 2011/12 Plan figures reflect the forecast 2010/11 figures on the whole with the exception of a new category of civil assets monitoring, which is intended to monitor asset condition and identify replacement needs and methods for doing so. It is understood that previously this task was included in Melbourne Water's State of the Assets process, the cost of which was distributed across the entire customer base. Given that the major assets in the area, the Tidal Gates and associated infrastructure, are being renewed, it is assumed that this cost covers all other civil assets including jetties, beaches, foreshore works and other similar assets.

Table 6 Proposed Operating Expenditure for Quiet Lakes for 2011/12 ($ nominal)

Tidal Waterways	2009/10 Actual	2010/11 Forecast	2011/12 Plan
General maintenance	$100,246	$110,000	$110,000
Newsletter	$2,234	$4,106	$5,474
Water quality testing	$10,000	$10,000	$10,000
Fish removal	$0	$25,496	$25,496
Contract management fees	$20,091	$19,560	$19,560
Maintenance Co-ordinator	$29,032	$29,032	$29,032
Other water quality works			$84,990
Total Expenditure	**$161,603**	**$198,194**	**$284,552**

The proposed expenditure for 2011/12 essentially matches the 2010/11 forecast with the exception of an additional line item for other water quality works. This item contributes to a significant increase in total operating expenditure of 43.6 per cent. The proposed water quality works are aimed to reduce the incidence of blue green algae outbreaks and therefore increase the aesthetic

amenity of the Quiet Lakes. Some of the items included in this additional expenditure could be expected to be included in general maintenance, particularly the bore pump electricity and monitoring and the maintenance of the solar bee. However it is noted that historically there has been under recovery of costs and cross-subsidies between Quiet Lakes and Tidal Waterways. As such, a general increase in expenditure is likely to better reflect actual operations and maintenance tasks undertaken for Quiet Lakes.

Table 7 Proposed Operating Expenditure for Koo Wee Rup for 2011/12($ nominal)

Koo Wee Rup District		2009/10 Actual	2010/11 Forecast	2011/12 Plan
Precept Drains	Channel maintenance	$378,200	$415,000	$420,000
Precept Drains	Floodgate maintenance	$56,100	$60,000	$60,000
Precept Drains	Office maintenance	$14,200	$15,000	$15,000
Precept Drains	General repairs	$27,600	$90,700	$18,700
Precept Drains	Management fees	$97,000	$106,000	$106,000
Total		**$573,100**	**$686,700**	**$619,700**
Carrier Drains	Channel maintenance	$243,500	$382,000	$326,000
Carrier Drains	General repairs	$8,800	$11,300	$11,300
Carrier Drains	Management fees	$58,300	$64,000	$64,000
Total		**$310,600**	**$457,300**	**$401,300**
	Additional expenditure			**$198,700**

The 2010/11 forecast figures include a one-off cost related to clean up works associated with flooding in early February 2011. The proposed 2011/12 figures represent a slight increase over the 2010/11 figures (excluding the one-off flood related costs) although Melbourne Water is proposing a one-off charge for additional expenditure. This additional expenditure goes some way to offsetting the over-recovery of revenue in this area in past years.

3.2.2 Efficiency review

The operating expenditure for Patterson Lakes and the Koo Wee Rup areas is predominantly made up of maintenance expenditure. This expenditure is incurred under a long term contract between Melbourne Water and Thiess which covers operations and maintenance activities across Melbourne Water's entire waterways and drainage service area. While Thiess are the exclusive service providers under this contract, the rates, fees and other charges agreed under the contract have been subject to the competitive tendering process and have also been scrutinised and negotiated prior to awarding the contract. As a result, the expenditure incurred and proposed can be considered efficient.

It would be expected, however, that Melbourne Water continue to monitor the rates, fees and other charges associated with the long term contract to ensure that they continue to represent best value for money over the term of the contract. If current market rates were determined to be lower than currently charged under the contract, it would be expected that Melbourne Water would assess the contract to ensure that it still represented best overall value for money.

3.2.3 Summary

Proposed operating expenditure for 2011/12 has been briefly reviewed and generally represents only a small increase over previous years' expenditure. While some components of new expenditure might appear to be out of place (refer civil assets monitoring and other water quality monitoring works discussion in section 3.2.1 above), the expenditure is not considered to be unreasonable. The efficiency of the proposed expenditure is demonstrated through a competitively tendered, long term contract.

3.3 Capital expenditure review

3.3.1 Depreciation review

An overall review of capital expenditure was undertaken however the focus of the review was on depreciation costs which appeared to vary significantly year to year. It was expected that depreciation costs would be relatively steady given that the straight line depreciation method is used.

Our review of the depreciation costs included in Melbourne Water's submission identified that while depreciation was calculated using the straight line method, the calculations were done on a yearly basis and are done for each particular capital expenditure item. For Tidal Lakes this includes:

- Retaining walls
- Jetties
- Foreshore works
- Dredging

The yearly depreciation figures include values for all previous year's infrastructure expenditure (back to 2006/07) plus half of the infrastructure expenditure for the year in which the depreciation is calculated. Depreciation for each of the capital expenditure items is also calculated based on an asset life specific to the asset to which the expenditure relates.

3.3.2 Summary

The resulting effect of the process identified above for calculating depreciation is a highly variable yearly depreciation total, however the process by which the depreciation is calculated is considered to be reasonable.

3.4 Process Review

This section briefly summarises the processes by which actual operating expenditure and revenue are reported. This was done to identify that the appropriate ring fencing measures are in place to ensure that the customers affected by the specific precept charges are only charged for works undertaken in their respective precept area.

3.4.1 Actual Operating Expenditure

One of the key operational activities and costs is represented by asset maintenance activities included in actual operating expenditure are undertaken under a long term contract on behalf of Melbourne Water by Thiess. Any work done by Thiess in the precept areas must follow the procedures set out below:

- A Melbourne Water field supervisor determines the work to be undertaken by Thiess for the coming month. This is recorded against Hansen work orders. In order to separately identify the works in the precept areas, a specific budget code (for example, A100900532 and D100290532 are for the special precept areas) is then allocated.
- At the end of each month, actual works completed across the whole of Melbourne Water's drainage and waterways network are summarised in a report, by specific budget code, which is submitted to Melbourne Water by Thiess (copy of report dated 28/04/2011 was provided).
- The Thiess report is then sent to the relevant Melbourne Water field supervisor for approval. This process involves a reconciliation of expected versus actual work and a check of work done against the specific cost centre and activity codes. This check is designed to identify human error inputs where field staff might have allocated their time to an incorrect code.

- The listing is sent to Thiess for reconciliation who can then invoice Melbourne Water for the agreed work done. The agreed work done includes work fully completed as well as costs incurred on projects that are not yet completed (work in progress).
- The payments are uploaded into Melbourne Water's Finance One (F1) system under the appropriate centre numbers using the budget codes identified on the invoice.

Melbourne Water also provided a copy of a standard procedure entitled Payment of Monthly Thiess Payment dated October 2009 but with a last review date of October 2010. This procedure provided specific guidance on how the payments to Thiess are identified, validated and subsequently paid.

Assessment of process

The two key factors for consideration in this review are the efficiency of the expenditure and the method by which the expenditure is accounted for, that is, how the expenditure is ring-fenced from work done outside the special drainage areas.

- Efficiency – all maintenance and ongoing work done within the special drainage areas is done under a long term contract with Thiess that covers Melbourne Water's entire waterways and drainage area. This contract is part of a number of major long term contracts for services let by Melbourne Water. The contracts were advertised openly and awarded on a competitive basis that included specific negotiation with shortlisted bidders over rates, fees and other charges. On this basis, Melbourne Water has done what is required to ensure the efficient delivery of services. While the contract with Thiess has not been sighted as part of this review, it would be expected that the contract allows for some regular market testing of the rates to ensure ongoing efficiency over the course of the contract term.
- Ring-fencing – as described above, works associated with the special drainage areas are reported in combination with other areas, however a set of categories are used to define and allocate costs associated with the special drainage areas. These categories are defined within Melbourne Water's Finance One (F1) financial system and the Hansen asset management system as **Sections, Management Units, Cost Centres** and **Budget Codes**.

During interviews with Melbourne Water, a demonstration was sought for a couple of reported figures that there was consistency between these figures and the base data in the Finance One system. While there were difficulties in doing this, due to the accruals process for paying Thiess' invoices and work in progress claims, the figures in Finance One were generally consistent with the reported figures.

3.4.2 Revenue

All residents in the Melbourne metropolitan area have a drainage and waterways charge attached to their water bills. This includes all residents of the Patterson Lakes Special Drainage Areas but does not include residents in the Koo Wee Rup Flood Protection District. These drainage charges are based on the 1990 Net Annual Value (NAV) or Site Value (SV) of the property.

Revenue in the Patterson Lakes Special Drainage Areas (which comprises the Tidal Waterways and the Quiet Lakes precept areas) and the Koo Wee Rup Flood Protection District is collected from residents by South East Water (the business responsible for the provision of retail water services in these areas) on behalf of Melbourne Water.

Each month Melbourne Water receives a Property Count Report via email from South East Water which details the general/precept fees collected from:

- Residential customers – general drainage rate
- Non-residential customers - general drainage rate
- Koo Wee Rup customers – Special Precept charges

- Patterson Lakes – general drainage rate and Special Precept charges

A copy of a report from South East Water dated 1 April 2011 was provided for review. This report shows the number of properties in different categories with unique identifiers including, for example:

- D06 Residential – Billed Quarterly – Koo Wee Rup – Longwarry Flood Protection District, and
- D29 Tidal Waterways properties – Extra fees at Patterson Lakes.

The report from South East Water dated 1 April 2011, was modified by Melbourne Water to calculate revenue based on the relevant approved drainage charges.

Assessment of process

The test of efficiency naturally does not apply to revenue, however the second key factor for this review was related to ring-fencing and this is discussed briefly below:

- Ring-fencing – the Patterson Lakes and Koo Wee Rup Special Drainage Areas are well defined with known and clear boundaries. South East Water has good records of properties located with the special drainage areas and as such are the best placed to collect revenue on behalf of Melbourne Water. As discussed above, the property count report provided by South East Water lists the various categories of properties including separate identifiers for the Special Drainage Areas. This division of properties provided to Melbourne Water enables the calculation of revenue which is appropriately ring-fenced.

3.4.3 Summary

The process by which Melbourne Water's actual operating expenditure is calculated and reported, and the process by which Melbourne Water ring-fences expenditure related to the special areas, has been reviewed.

The findings of this review indicate that Melbourne Water has in place the appropriate measures to report actual expenditure and the appropriate controls to ensure that only expenditure related to the special areas is reported and allocated and therefore used to determine the special area charges.

4. Review of Submissions

A number of submissions were received by the Commission in relation to this review. Some of the key issues raised in these submissions have been assessed and brief comments are provided in the following points:

1. Flood gates – operations and maintenance costs should be covered under the Waterways and Drainage Charge (WDC) not the precept rate.

   It is understood that the tidal gates were originally built to protect the immediate area of Patterson Lakes from the effects of floods and storm surges and that this remains their primary function. The gates also provide a level of recreational use allowing the development of the marina and canal system which forms a key component of the attraction of the development.

   It is likely, then, that if not for the development, the flood gates wouldn't exist. The level of protection offered by the gates is seemingly restricted to the immediate tidal waterways areas. This is a fairly exclusive service provided and as such it seems appropriate that at least the operations and maintenance costs of the gates should be borne by the residents under the precept rate.

2. Dredging – is only required due to failures of upstream waterways managers and should be covered by the WDC.

   It is understood that Melbourne Water conducts '"dredging" at the tidal gate entrances to ensure that the gates remain functional. Dredging of the Patterson River mouth is conducted by Parks Victoria. If the tidal waterways development did not exist, it would seem unlikely that any dredging would be required.

   This again appears to be a relatively exclusive arrangement for the residents in the precept area. Dredging provides the opportunity for these residents to undertake recreational activities when under normal circumstances this would not be able to occur to the same level. As such, the cost of specific dredging to keep the tidal gates functional and the canals passable would seem to be appropriately covered by the precept rate. Dredging by Parks Victoria on the Patterson River is assumed to be covered by other funding arrangements.

3. Walls – flood levees should be covered by the WDC

   Refer discussion on point 1 flood gates.

4. Foreshore works – allowance of $1 million should be paid by Melbourne Water

   It is claimed that the main outcome of the $1 million total allowance (over four years) will be a new works depot for Melbourne Water. An examination of Melbourne Water's pricing submission indicates that an allowance of $418,000 has been set aside to create a number of alternative works depots. This need has arisen due to zoning adjustments which presumably have affected Melbourne Water's current works depots. The remainder of the allocated expenditure ($192,100 per annum to 2014/15) is categorised under the compliance driver and is allocated to cover the replacement of foreshore rocks and sand (presumably for beaches).

5. Precept rate – should only cover exclusive recreational facilities (jetties and beach maintenance)

   The general concept of this comment is supported. Where the facilities provided are exclusively used by residents, the recovery of costs through the precept rate would be appropriate. Where other residents or members of the public have access to these facilities, then at least some proportion of the ongoing costs could reasonably be covered under the WDC.

6. Precept rate – double counting in regards to agreement with Marina operator

   Whilst no specific information was included in this year's submission related to this issue, Melbourne Water's submission to the 2010/11 price review indicates that there was a completely separate agreement with the Patterson Lakes Marina whereby the Marina contributed a proportion of the capital expenditure required for the Tidal Gates replacement project. In addition, the Marina contributes to the maintenance of assets within the precept area through a separate payment process. These contributions are separate to the contributions of Melbourne Water and the customers within the precept area.

   Melbourne Water's current pricing model clearly shows revenue from the Marina of around $65,000 per annum and shows a capital contribution proportion of 28 per cent which is completely separate from allocations for the general rate base and the tidal waterways customers.

   Given this information, it is not expected that double counting of either contributions or expenditure is occurring.