ATKINS
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IPART

Supplementary Submission Review

Sydney Water Corporation

Final Report

July 2005

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GLOSSARY OF TERMS

Term	***Meaning / Definition***
AIR	Annual Information Return
capex	capital expenditure
Determination	The price limits set by a regulator
DEC	Department of Environment and Conservation
DSP	Developer Services Plans
FY	Financial Year. We express expenditure in all tables related to the end of each financial year. For example, the financial year 2005/06 is shown as 2006.
IICATS	SWC's instrumentation control system
IPART	Independent Pricing and Regulatory Tribunal
KPI	Key Performance Indicator
NSW	New South Wales
opex	operating expenditure
price control period	The period over which price limits are determined
price path review	The review of price limits for the price control period
price base	All expenditure is reported as the cost in year 2004/05
SCADA	Systems Control And Data Acquisition
SIR	Special Information Return
SWC	Sydney Water Corporation
SWOOS	South West Sydney Ocean Outfall Sewer
WAMS	Work and Asset Management System
	Throughout this report, all capital and operating expenditure is reported by financial year ending 30 June for each year. For example expenditure in year 2006 refers to the financial year commencing on 1 July 2005 and ending 30 June 2006

1 Introduction

In September 2004, the Independent Pricing and Regulatory Pricing Authority of New South Wales (IPART) appointed Atkins/ Cardno to carry out a review of the capital expenditure, operating expenditure and asset management practices of the Sydney Water Corporation (SWC). We prepared a Final Report[1] dated February 2005 on the SWCs submission to IPART dated 12 November 2004 including the Annual Information Return (AIR) and Special Information Return (SIR) both dated 2 November 2004. IPART issued its Draft Determination and Report[2] in June 2005.

Sydney Water Corporation prepared a Supplementary Submission on operating and capital expenditure proposals to IPART dated March 2005. We were appointed by IPART to carry out a review of this Supplementary Submission. Our brief in respect of the SWC was:

For operating expenditure, to;

(i) "provide the consultant's opinion as to the efficiency of the agency's proposed additional level of operating expenditure for each year between 2005/2006 and 2008/2009 and provide for each year estimates, with supporting reasons, of the level of operating expenditure that is required to efficiently undertake their regulated functions;

(ii) Identify and analyse any additional transfers of costs between regulated and unregulated parts of the water business, subsidiary or parent agency or businesses and comment on any such transfers which in the opinion of the consultant are inappropriate.

For capital expenditure, to;

(i) provide an opinion as to the efficiency of each agency's capital expenditure program for the period from 2005/2006 to 2008/2009 and provide for each year estimates, with supporting reasons, of the level of capital expenditure that the consultant considers efficient in order to undertake each agency's business and functions.

(ii) identify and segregate the capital works projects associated with assets for which developers will either contribute to the cost of provision or will build and possibly hand over to the agency and reconcile actual and proposed developer funded capital expenditure with forecast capital expenditure in Development Servicing Plans."

We undertook an initial desk top review of the submission in April 2005. We then issued an Information Request to the Agency, through IPART, to seek clarification of various aspects of the submission. The Agency provided a detailed response in June 2005.

Our Supplementary Report addresses only those issues raised by the Agency in its Supplementary Submission. Reference should be made to our Final Report

[1] Capex Asset Management and Opex Review Sydney Water Corporation Final Report, Atkins, February 2005

[2] Sydney Water Corporation etc Draft Report and Draft Determination, IPART, June 2005

dated February 2005 for a comprehensive view on the level of operating and capital efficiencies applied to the Agency's submission.

2 Methodology

2.1 The Supplementary Submission

Our methodology for the review of the Agency's Supplementary Submission differs in some respects from our approach to the main efficiency review. This is because our main review looked at all aspects of operational expenditure and capital programs. For this Submission, we have not re-opened the complete efficiency review but have assessed the changes in expenditure reported by SWC against our understanding of the Agency's asset base, program drivers and expenditure proposals included in our Main Report.

In our review, we considered several factors in determining whether changes in operating and capital expenditure can be considered as efficient expenditure. These are set out below.

Materiality

Where reported changes in operating and capital expenditure do not have a material impact on price limits, then they should not be considered as a 'material' change. Materiality for the SWC as defined by IPART[3] was $725,000 for operating costs and $600,000 for capital expenditure.

Errors and Omissions

In our efficiency review we were not required to audit the costs presented. Where errors and omissions, increasing or reducing expenditure, were subsequently identified by an Agency, we have after due scrutiny recommended that these costs are included within the price control.

Operating Cost Increases due to External Requirements

We have scrutinised any additional operating costs due to external drivers, for example demand management and DEC requirements. Where there is a clear additional external requirement to undertake more activities or construct additional assets then these costs have been included in the recommended expenditure.

Changes in Operating Costs due to Management Action

Where changes to operating costs from the main submission are reported and are due to management action, we consider whether the savings should be included within the efficiency targets set in the Draft Determination. For example, provision of vehicles where a change in procurement is to move from lease arrangements to purchase with resulting savings in total costs. We normally consider these changes to be management actions to pursue efficiencies which we should encourage. We consider two options, firstly to accept the changes in operating cost and capital expenditure and adjust the efficiency target, as we did for the main Submission; or assume that these are management actions to achieve the efficiency targets set

[3] email IPART to Atkins 24 June 2005, 'Materiality'

and assume no changes to opex, capex or the efficiency targets. We consider each case on its merits and discuss in subsequent sections of the report.

Prudent Capital Expenditure

Our view of prudent expenditure has changed with further information from agencies on the actual expenditure in year ending June 2005. We identify the scale of the reduction in expenditure and the reasons for change. We also identify the reasons for the reduction in expenditure; through for example slippage (outputs deferred), efficiencies gained or outputs not required.

Changes in Capital Expenditure due to External Drivers

We have reviewed and commented on additional information where the timing and scope of works are to meet external drivers such as growth, quality programs and priority sewerage.

Changes in Expenditure due to Costs or Timing

Revised priorities and changes in the timing and scope of schemes within the capital expenditure are normally a matter for the agency in managing its program. However we have looked at and commented on any significant changes in expenditure so soon after the main Submission.

We also reviewed additional information provided by an agency to support changes to the timing and scope of its original submission; for example specific schemes identified by SWC.

We have reviewed our opinion on achievability following the reported actual expenditure in 2005 compared with planned expenditure reported in November 2004. Where the impact of slippage is to result in a significant increase in expenditure between 2005 and 2006, we have challenged the achievability of this increase and have, in some instances applied a small element of reprofiling to reflect the most likely outcomes.

Identification of Efficiencies in 2005

From our analysis of the reasons for change in the 2005 expenditure between planned and actual, we have identified some efficiencies. This confirms our view that there are efficiencies to be gained within the current planned programs.

2.2 Methodology for deriving Efficiency Targets

Approach

Our approach to determining the efficient level of capital and operating expenditure of the agencies is based on a methodology developed by Ofwat[4] and applied to water companies in England and Wales over three price controls in 1994, 1999 and 2004. This methodology applies the concepts on continuing and catch-up efficiency described below. The methodology is a quantitative approach based on information supplied by water companies.

[4] Future Water and Sewerage Charges 2005-10 Final Determinations, Ofwat 2004

For the New South Wales agencies, there is insufficient information to allow a robust quantitative assessment to be made. We have therefore applied a qualitative assessment, following the same methodology, based on an assessment of processes, interviews with agency staff and a review of sample capital schemes and operational processes.

In regulatory reviews of this nature there is usually a wide information asymmetry between agencies and reviewer. As reviewer, we therefore make an assessment of the agency's performance and apply our judgement, developed from wide experience of undertaking efficiency views for price controls, asset management, water engineering and utility management in Australia and internationally, to form our independent professional opinions. We summarise our methodology below, addressing capital and operating expenditure.

Capital Expenditure

For each agency's capital expenditure IPART requires us to:

- *"Provide an opinion as to the efficiency of each agency's capital expenditure program for the period from 2005/2006 to 2009/2010 and provide for each year estimates, with supporting reasons, of the level of capital expenditure that the consultant considers efficient in order to undertake each agency's business and functions."*

Historical and Current Expenditure

In order to evaluate the prudence of historical expenditure we reviewed a representative sample of completed schemes. We reviewed the need for each scheme, its timing, the difference between anticipated and out turn costs and any cost control measures that were employed, to form a view on this aspect of the agency's expenditure. We identified any scheme that was not, in our opinion, consistent with the core business of the agency. Finally, we compared actual expenditure against that allowed by IPART in its 2003 Determination and reviewed the reasons for any variances.

Future Expenditure

Our approach to determining recommended allowable future capital expenditure is based on an assessment of the capital expenditure Submission drawn from a review of a representative sample of schemes, our views on asset management, procurement and the robustness of cost estimates. We also confirmed the drivers of expenditure and the timing of programs of work; in particular for growth and new standards.

From our assessment, we excluded expenditure which was not related to the agency's core business. We made specific adjustments to the expenditure profile to reflect our comments on the scope, cost and timing of schemes. For some agencies we reprofiled areas of expenditure to reflect likely limitations in achievability. Finally we made adjustments to expenditure to reflect the potential for continuing and catch-up efficiencies.

Capital Efficiency Methodology

Our assessment of capital efficiency is based on the concepts of continuing and catch-up efficiency following the Ofwat methodology.

Continuing efficiency is the scope for top performing or frontier companies (agencies) to continue to improve their efficiency. It reflects the continuing efficiencies being gained across all major sectors through innovation and new technologies.

Catch-up efficiency is the scope for all other utilities to reach the performance of a frontier utility.

This concept was developed and applied by the Office of Water Services (Ofwat) in England and Wales for the 1999 Periodic Review and also used in the 2004 Periodic Review[5] and subject to independent scrutiny by the UK Competition Commission[6].

There are two methods that Ofwat applied to assess the scope of capital efficiencies; firstly the use of econometric models built up from time series data across the companies. Secondly, the use of a 'Cost Base' analysis.

The Cost Base analysis requires companies to submit the unit costs for a range of activities within their investment plans; for example mains laying in various diameters, mains rehabilitation, sewer laying, construction of treatment works and replacement of pump assets. Ofwat then analyses the range of unit costs for each item, or groups of items, and identifies a benchmark or 'frontier' company. This analysis is based on companies' data and is subject to independent review. Ofwat then assumes that other companies will progress towards the benchmark company over the price control period; the extent of this catch-up is a policy decision made by Ofwat. The analysis resulted in significant targets being set for companies to achieve.

Trends in unit cost savings over the period 1994 to 1999 and 1999 to 2004 were analysed by London Economics[7] in November 2003. It looked at the change in the Cost Base standard costs as submitted by companies over the period PR94 to PR99 and PR99 and PR04. This was based on company data which was subject to independent review and summarised in Table 1 below.

Investment Area (PR = Periodic Review)		**Calculated change PR94 to PR99 (%)**	**Calculated change PR99 to PR04 (%)**	**Typical standard costs used in the analysis**
Water Service	Infrastructure	-10	-15	Mains laying and rehabilitation
	Non-infrastructure	-28	-30	New and replacement pump assets
Sewerage Service	Infrastructure	-9	-20	Sewer laying and insituform rehabilitation
	Non-infrastructure	-14	-5	Sewage treatment assets
	Other assets	No data	-10	Storage tanks

Table 1 Cost Base Comparisons

[5] Future Water and Sewerage Charges 2005-10 Final Determinations, Ofwat 2004
[6] Sutton and East Surrey Water plc, A report on the references under sections 12 and 14 of the Water Industry Act 1991, Competition Commission 2000 and Mid Kent Water plc, A report on the references under sections 12 and 14 of the Water Industry Act 1991, Competition Commission 2000.
[7] PR04 Scope for Efficiency Studies Final Report to Ofwat, London Economics et al, Nov 2003.

Source: London Economics[4] tables 5.3 and 5.4

London Economics reviewed the company and independent reporter comments on the submissions and explanation for the reduction in standard costs. Some 60% of the changes are due to improved procurement and program management practices, 30% of the change was due to previous errors, better understanding or methodology changes. The application of value engineering was also identified. Reductions apportioned to standardisation and technological change was 10%. While these relative weightings are subjective, the analysis identified the key areas of improvements.

Companies also identified in annual reports to Ofwat that the main reasons for these savings were related to improved procurement and management practices, for example framework agreements, contract alliancing, risk management, contract batching and project synergies. In essence, savings were achieved by reducing risk to companies and contractors through their early involvement in the implementation processes and smoothing workloads, which allow contractor efficiencies to be shared with companies.

Ofwat was able to collect and analyse extensive data sets on costs and performance to allow a quantitative assessment of catch-up efficiencies to be made. In New South Wales, the extent of data is not sufficient to carry out a quantitative analysis. We have therefore applied a qualitative assessment of the capital processes currently in use, or recently developed, by each agency to manage capital expenditure, and the methods and costs used to prepare the capital expenditure proposals in the SIR. We have thus reviewed four key processes, identified by the London Economics report as being fundamental to the efficient delivery of the capital program:

- Asset management;
- Cost estimating;
- Procurement; and
- Program management.

The approach is consistent with the methods we applied to efficiency studies to support price controls in the postal sector in the UK and to gas and electricity sectors in Northern Ireland.

We focussed our approach on asset management processes in place, being applied and to be implemented. We looked at the methods used to prepare cost estimates and the extent of contingencies included. We evaluated the current and proposed procurement processes, compared these with best practice and assessed the impact of improved procurement practices on the capital expenditure proposals. Our views on program management were influenced by the analysis of historical expenditure, planned and actual expenditure in 2005, and outputs delivery and discussions with agency staff.

Catch-up Efficiency

We applied our judgement to determine the level of catch-up efficiency that could be achieved by 2009, based on our detailed experience of best practice applied in England and Wales, the results of what has been achieved by water companies in

England and Wales, and our qualitative assessment of each agency's capital planning processes.

The London Economics analysis in Table 1 showed a range of savings from 5% to 30%. London Economics suggested that, disregarding some data issues, the likely range is 4% to 20% over the five year period. These values include catch-up and continuing efficiency.

From our qualitative assessments of the NSW agencies, we identified several areas where there is potential to improve capital processes up to the frontier company or agency. These are discussed in our February 2005 reports on the agencies. Our findings from this review are that the best performing agencies in NSW are equivalent to the average large water and sewerage utilities in England and Wales. Our assessment resulted in recommended catch-up efficiencies in the range 2 to 3% in 2006, increasing to 9% in 2009. When continuing efficiency assumptions are included, these targets are broadly equivalent to about half the efficiencies gained by England and Wales companies over an equivalent period.

Our approach has been to phase catch-up efficiency over the price control period, recognising that the benefits arising from improvements to processes will take some time to realise.

Continuing Efficiency

We have assumed a continuing capital efficiency of 0.5% per annum over the period 2006 to 2009 to reflect the impact of new technology and innovation which all agencies, including a frontier agency, should achieve. This figure is factored down from the identified potential for continuing efficiency to reflect other factors which may affect these comparisons. This assumption is informed by productivity information in Australia[8] and assumptions by Ofwat in 1999 and 2004. We suggest that any significant differences between the forecast and outturn continuing efficiency should be considered from a retrospective analysis of prudent expenditure at the next price path review.

Operating Expenditure

For operating expenditure IPART requires us to:

- *"Identify and analyse the agencies' potential for cost reduction for each function and make recommendations, with supporting reasons, about efficiency gains that the Tribunal can consider when determining efficient operating expenditure levels for price setting. If current expenditure in an area of operations is assessed as inadequate, specification and quantification of recommended additional expenditure should be undertaken.*

- *Provide the consultant's opinion as to the efficiency of each agency's proposed level of operating expenditure for each year between 2005/2006 and 2009/2010 and provide for each year estimates, with supporting reasons, of the level of operating expenditure that is required to efficiently undertake each agency's regulated functions"*

[8] Productivity in the Market Sector, National Accounts Table 22, Australian Bureau of Statistics, 2004.

Future Expenditure

Our approach to determining recommended allowable future operating expenditure is similarly based on the Ofwat methodology of continuing and catch-up efficiencies. There is insufficient quantitative data to apply econometric modelling for this review. We therefore followed a qualitative approach examining operating cost processes, assessing the agency's operating costs by service area, the management structures it has in place, the processes that are established to manage operating costs, and specific agency issues impacting on operating costs.

We excluded expenditure not related to the core business. We made specific adjustments to areas of expenditure to reflect the findings of our review of costs and processes. We made general adjustments to the expenditure to reflect continuing and catch-up efficiencies. For some agencies we recognised that a proportion of operating costs are not directly controllable.

Operating Efficiency Methodology

Our approach to operating efficiency is similar to capital, using the concepts of continuing and catch-up efficiency. Continuing efficiency is the scope for top performing, or frontier, companies (agencies) to continue to improve their efficiency. Catch-up efficiency is the scope for all other companies to catch up with the frontier agencies or utilities.

Our assessment is consistent with a methodology developed and applied by Ofwat in England and Wales for the 1999 Periodic Review and also used in the 2004 Periodic Review. The method was independently scrutinised by the UK Competition Commission[9]. The limited extent of data available from agencies in New South Wales does not allow the application of a detailed quantitative approach. Our opinion is therefore based on an assessment of operating cost processes against best practice, the potential for savings identified from our detailed reviews and a comparison with the level of efficiencies achieved by water utilities in England and Wales.

Our assessment took into account of;

- actual performance of companies in England and Wales over the period 1999 to 2004, as discussed below;
- the proposed efficiency savings by the Scottish Water Industry Commissioner[10] which proposed a one-off efficiency of 18% on baseline operating costs for the four year price control;
- the final Water Price Review for the Victorian Water agencies by the Essential Services Commission [11] which applied a 1% per annum productivity factor to operating costs.

Our qualitative review of agencies' operating costs included assessments of processes, management structures, the extent of activity based costing and

[9] Sutton and East Surrey Water plc, A report on the references under sections 12 and 14 of the Water Industry Act 1991, Competition Commission 2000 and Mid Kent Water plc, A report on the references under sections 12 and 14 of the Water Industry Act 1991, Competition Commission 2000.

[10] Draft Determination of Price Limits for Scottish Water, Water Industry Commissioner Scotland, June 2005

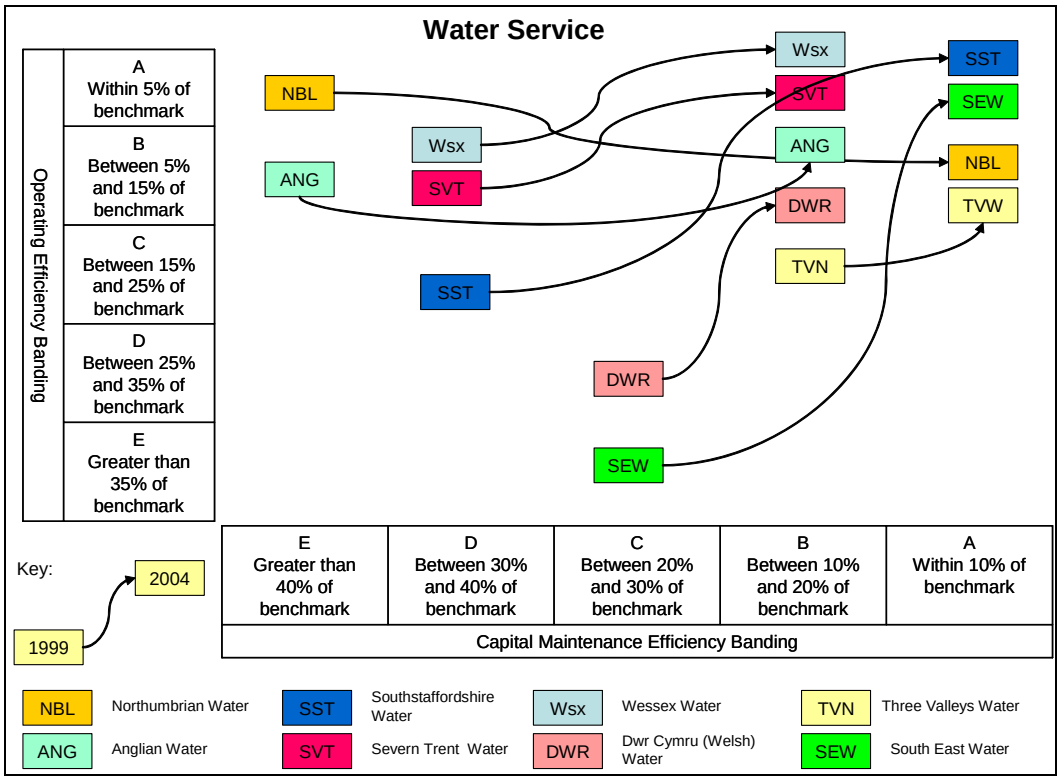
[11] Water Price Review: Metropolitan and Regional Businesses' Water Plans Final Decision, Essential Services Commission, June 2005

identification and monitoring of cost drivers; we compared these with current best practice. We commented in our agency reports on the possible scope for efficiencies. We also took account of each agency's approach to efficiency savings and its own efficiency proposals.

Water companies in England and Wales were set challenging operating expenditure targets for the period 2000 to 2004 and most achieved these. For example, the average annual continuing efficiency target set by Ofwat at the 1999 Periodic Review was 1.4% per annum and the annual catch-up efficiency ranged from 0-3.5%, with an average 1% per annum. These percentages were applied to the total operating expenditure and no differential was made between controlled and uncontrolled costs.

Several companies moved closer ("caught-up" with) to the frontier company over this time, as shown in Figure 1.

Figure 1 Movement of English Companies towards the Frontier – Water Service



Source: Ofwat Periodic Review – Final Determinations 1999 and 2004

Continuing Efficiency

The continuing improvement element of efficiency relates to the increased productivity derived from process innovation and new technology that all well performing businesses should achieve, including frontier agencies. This applies to a range of industry sectors. Information from the Australian Productivity Commission and the Bureau of Statistics suggest that productivity in Australia is increasing on average at about 1% per annum. Comparative data from regulators in England and Scotland suggest a range of continuing efficiency values from 1.4% in 2000 to 0.6% in 2004. We have taken a figure of 0.8% per annum to recognise exogenous factors which may restrict the agency's ability to achieve continuing efficiency.

Our view is that using just the utility sector as a measure for productivity is not appropriate due to its relatively small size and sensitivity to the influence of large utilities on sector trends. However, it is appropriate to compare productivity within similar sectors of industry to assess the impact of innovation and new technology in more competitive areas of business.

We noted that one agency is developing a total factor productivity methodology to understand trends in its own productivity over time for comparison with the utility sector and other sectors. The initial results are encouraging and the approach provides a good basis for further development. A key issue is the definition of outputs and how the influence of quality and service performance may be modelled. There is clearly scope for further work in this area over the price control period to develop total factor productivity methodologies within and across utilities to provide an econometric approach to the assessment of future efficiencies.

Catch-up Efficiency

Our qualitative approach examined operating cost processes, assessed the agency's operating costs by service area, the management structures it has in place, the processes that are established to manage operating costs, and specific agency issues impacting on operating costs. From this analysis of each agency, we proposed a range of catch-up efficiencies from 1%/a up to 1.5%/a across the agencies, with efficiencies for the SCA commencing in 2007. These percentages take account of elements of operating costs which are not controllable. These efficiencies are of a similar order as the Ofwat proposals in 2004. We have not factored the Ofwat proposals down as, from our assessments of agencies capability, there is scope for efficiency improvements. Indeed, Sydney Water's own proposals are to outperform our assumed efficiencies in the first two years of the price control period.

2.3 Relative Price Increases

Agencies have commented in their submissions on the relative increase in construction costs in New South Wales compared with CPI and the impact on the outturn costs for assets. Sydney Water presented a report from quantity surveyors, Evans and Peck.

Our view is that setting efficiency targets is independent of changes in construction price indices. Our brief from IPART relates to advice on the level of efficiency for operating and capital efficiencies; it does not cover forecasts on the likely variance between construction prices and CPI over the coming four years.

At the workshop on 22 July, the Tribunal confirmed that the issue of relative price increases was a matter for IPART to consider taking into account submissions from agencies and the level of contingencies built into current capital programs.

3 Operating Expenditure

3.1 Review of Opex Issues

Sydney Water's March 2005 Supplementary Submission sought an additional $18.3M in operational expenditure, as outlined in the following table:

$M 2004/05	2006	2007	2008	2009	Total
Water	14.4	8.6	-0.3	3.9	26.6
Wastewater	-1.6	-2.2	-2.3	-2.2	-8.3
Stormwater	0.0	0.0	0.0	0.0	0.0
Corporate	0.0	0.0	0.0	0.0	0.0
	12.8	**6.4**	**-2.6**	**1.7**	**18.3**

Table 2 Additional opex sought by Sydney Water in the Supplementary Submission

Source: SWC SIR March 2005 table SIR opex and response to Information Request June 2005.

This Submission highlights a number of significant shifts in opex from the November 2004 Submission including:

- A 3.7% (or $32M) reduction in predicted expenditure for 2005, comprised of a $17M reduction in water opex and a $15M reduction in wastewater opex;
- A significant increase in water operating expenditure equivalent to $26.6M over the pricing control period. Most of these increases are introduced in 2006;
- A reduction in wastewater operating expenditure of some $8.3M; and
- Corporate and Stormwater opex projections in the March 2005 Supplementary Submission are little different to the November 2004 submission.

With the additional operating costs introduced during 2006 and a reduction in opex now predicted for 2005, the current Submission indicates very significant real increases for 2006 equating to:

- 16.4% (or $64.6M) for water opex; and
- 8.9% (or $23.1M) for wastewater opex.

In the following sections, we identify and discuss the reasons for under-expenditure in 2005 and the impact on our findings. We identify the drivers for changes in expenditure over the price control period and quantify their impact on the forecast operating expenditure. We then recommend a level of operating expenditure which we consider is appropriate for Sydney Water.

3.2 Water Expenditure in 2005

Base Year Variations (2005) to Water Opex

The following table outlines the variation in water opex between the November 2004 and March 2005 pricing submissions.

$M 2004/05		2005	2006	2007	2008	2009
Water						
Nov 2004 AIR/SIR		411.27	444.56	452.77	461.92	472.45
	Annual Variance		33.29	8.21	9.15	10.53
			8.1%	1.8%	2.0%	2.3%
March 2005 AIR/SIR		394.21	458.84	461.47	461.47	476.32
	Annual Variance		64.63	2.63	0.004	14.85
			16.4%	0.6%	0.0%	3.2%
	Variance from Nov-Mar	**-17.057**	14.280	8.697	-0.450	3.862

Table 3: Water opex variations between November 2004 and March 2005 AIRs ($M 04/05)

The 2005 water opex base year supplementary projections have been reduced by $17M from the November 2004 submission. The AIR indicates that for the 2005 financial year, cost variances between the November 2004 AIR and the March 2005 AIR for the water business activity include:

Increases in:

- labour $0.2M;
- hire and contract services $2.9M;

Reductions in:

- bulk water charges $5.4M;
- BOO costs $1.6M;
- other $4.0M;
- employee provisions $6.9M;
- other provisions $2.3M.

Price Control Period Water Opex Variations 2005 to 2006

Based on information in the Supplementary AIR (adjusted for inflation), the following table outlines the major cost shifts from 2005 to 2006.

$M 2004/05	Difference between Nov 04 and Mar 05 Estimates *2005*	Variations in opex from 2005 to 2006 *SIR Nov 2004*	Variations in opex from 2005 to 2006 *SIR Mar 2005*
Labour	+ ($0.2M)	- ($6.1M)	- ($5.3M)
Hire and Contract Services	+ ($2.9M)	+ $21.7M	+ $33.1M
Bulk Water Charges	- ($5.4M)	+ $13.2M	+ $18.6M
Materials and Energy	0	- ($0.6M)	- ($0.6M)
BOO	- ($1.6M)	- ($0.5M)	+ $1.1M
Other	- ($4.0M)	+ $2.2M	+ $8.5M
Employee Provisions	- ($6.9M)	- ($0.7M)	+ $1.3M
Other Provisions	- ($2.3M)	+ $4.1M	+ $7.9M
Total	**- ($17.1M)**	**+ $33.3M**	**+ $64.61M**

Table 4: Variance of Water Operating Costs 2005 to 2006 ($M 04/05)

Source: SWC SIR Nov 2004 and March 2005 table SIR opex

This results in a 16% increase in operating expenditure from 2005 to 2006.

There is a significant increase in hired and contract services, mainly as a result the increase in opex schemes which under previous accounting rules were considered as capital expenditure. We questioned in our February 2005 report the achievability of a significant increase in expenditure over the first two years and rephased this. In view of the reduction in the 2005 expenditure and a more significant increase from 2005 to 2006, we have applied a similar rephasing.

Bulk water charges are dependent on individual customer demands, climate, and the impact of water efficiency measures. Compared with the 2003 Mid-Term Review, actual bulk water purchases were about $8M below forecast in 2004 and $11.8M in 2005. We understand that under the current methodology, IPART makes no retrospective adjustment for variance in demand changes but an alternative approach was proposed in the Draft Determination. However we note that, over these two years, Sydney Water has absorbed additional operating costs related to demand management measures.

Other cost changes between November 2004 and March 2005 represent a saving of 2.8%. The March 2005 outturn amount represents a 2.5% saving on the 2003 Determination.

Sydney Water explained to us at the meeting on 22 July 2005 that expenditure changes on bulk water charges, BOO costs and employee provisions were one-off costs and atypical of the base year. Allowing for the impact of these atypical costs on the base year, quantified in Table 4, there is a net reduction of $3.2M on base year expenditure which may be considered as typical and continuing.

3.3 Water Expenditure for 2005 to 2010

Sydney Water's March 2005 SIR and the response to our Information Request in June 2005 indicates that the new water operating expenditure introduced over and

above the costs included in the November 2004 SIR show a net increase of $26.6M over the price control period and includes:

Item	Total
A requirement to provide funding for the DEC Educational Fund at $2.0M p.a.;	$8.0M
Increases in the demand management programme costs;	$8.3M
Ongoing advertising and patrols for water restrictions at $6.7M during 2006 (including level 2 advertising during 2006 $2.1M, permanent restrictions advertising $2.0M and water patrols during 2006 $4.3M);	$8.4M
Operational cost increases associated with recycled water donated assets, starting from $1.3M p.a. in 2006 and increasing to $2.8M p.a. in 2009;	$9.22M
Operational cost decreases and other adjustments	-$2.21M
Change in labour costs with real price increases for labour prices offset by savings in employee provisions.	-$5.2M
Total Adjustments	**$26.6M**

Table 5: Increases to SWC Water Operating Costs

Source: SWC SIR March 2005 table SIR opex and response to Information Request June 2005.

In addition, there is a projected increase in SCA charges over the November 2004 submission of $5.6M p.a.

Water Conservation and Community Education Program

A number of significant expenditure increases during the price control period are associated with NSW State Government Programs aimed at reducing water consumption including $15M p.a. for the Water Conservation Fund and $2M p.a. for the DEC Education Fund. We were advised that the Water Conservation Fund contribution was mandatory. While the contribution to the DEC program may be discretionary, Government expectations would appear to be that Sydney Water will contribute to the DEC program. In this context, we accept these expenditures as an external mandatory requirement.

Demand Management Program

Sydney Water has advised of other adjustments to the Demand Management Program where the November SIR did not reconcile with the Demand Management Program. This is a case of errors and omissions in the November Submission. Nevertheless, from our earlier review of demand management schemes, we noted that some provided marginal benefits. We believe there is scope to target more closely those measures which are most effective and pursue more gainful initiatives. Given the current drought situation, it would not be reasonable to apply a numeric efficiency reduction, but SWC should look closely at the costs and benefits of a wide range of measures.

Ongoing Advertising for Water Restrictions and Bulk Water Costs and Water Reductions

We identified an anomaly where Sydney Water is now projecting a $5.4M reduction in bulk water costs for 2005, while also proposing a $5.6M increase in bulk water costs for 2006, together with a planned continuation of a $6.4M water restriction program.

The Draft Determination proposes a level of water demand, and hence charges to SCA, with a mechanism to address the risks associated with variations between forecast and actual consumption. This means that if demand varies within +/-10% of the Determination's demand forecast then the risk of this variation is with Sydney Water. At the same time, SWC is seeking further operating expenditure for advertising, demand management and water patrols within allowable expenditure where the benefits of lower demand and reduced cost, within the +/-10% band are retained by SWC.

On the basis that the approach to revenue setting in the Draft Determination is adopted where restrictions are not factored into demand forecasts, these additional demand management measures are intended to seek further reductions in water use. There may then be a case to offset benefits in bulk water cost savings against the cost of demand management measures.

Following clarification from IPART, we concluded that, in principle, the additional cost of demand management measures should be included within total operating costs. There is uncertainty about the agreed demand forecast and the duration of the various demand management activities; in particular the duration of water patrols and advertising. Without firm guidance on the assumptions for the demand forecast and the duration of activities, we have not made any adjustment to the additional operating costs proposed by Sydney Water. IPART may wish to make some adjustments to expenditure when the assumptions underlying the demand forecasts and the duration of water patrols are determined.

Increased Operating Costs due to Capital Expenditure for Growth

Sydney Water's March 2005 Submission identified changes in its estimated increase in operating costs as a result of capital expenditure for growth. These are classified as potable water, recycled water and wastewater. In response to our Information Request, SWC provided a schedule of schemes and related opex increases.

Our February 2005 report reflected the outcome of the challenge we made to Sydney Water's November 2005 Submission. In December 2005, SWC provided a revised profile of capital and operating expenditure related to a revised profile of development in existing and new areas. We accepted this revised profile and the underlying capital and operating costs. We adjusted operating costs to reflect a reduced profile of activity consistent with information provided by Sydney Water in December 2004. These adjustments were included in Table 16 of our February 2005 report and recommendations. We consider that these adjustments should still apply.

Sydney Water's Supplementary Submission did not change the scope and timing of water and wastewater growth expenditures. The Submission included an increase in recycled water expenditure related to both greenfield development and

specific schemes. Some of these schemes were defined as 'committed' and others were 'potential'. About half the expenditure related to 'committed' schemes and the other half to 'potential' schemes. For capital expenditure we took the view that the probability of the 'potential' schemes occurring within the scope and timing proposed was 50%; we adjusted the capital expenditure accordingly. We considered the change in operating costs to be marginal.

We found that there are small changes in forecast opex increases which are not material to the price determination. Changes in wastewater operating costs due to capex were also small and dependent on the phasing of capital schemes.

The material increase in operating costs arises from the recycled water schemes provided free of cost by Developers, with cost increases of $1.27M in 2005 increasing to $2.29M in 2006 and $2.82M in 2009. The November 2004 Submission included cost increases from $0.6M in 2006 increasing to $1.6M.

In discussion with the Tribunal on 22 July 2005, the issue of a separate price control for recycled water was discussed. While IPART are considering this issue of a separate pricing structure, we have separately identified the likely operating costs of specific recycled schemes. We have currently excluded these costs from the water and sewerage operating costs subject to a decision from IPART.

Operational Projects

We commented in our February 2005 Report that:

"SWC has forecast a substantial increase in operational projects that have been identified from its improved asset management planning process; including:

- *Increases in water operational projects from $3.1M in 2005 to $12.4M in 2006; and*
- *Increases in wastewater operational projects from $5.9M in 2005 to $16.7M in 2006.*

SWC has developed substantial business cases and justification for this level of increased expenditure. At the time of our draft report, we took the view that SWC was not in a position to achieve the significant increase in expenditure over 2006 and 2007. Further information was provided by SWC including a review of nominated projects for 2006 and 2007 with supporting information. We took note of the additional information and revised our recommended expenditure profile but not to the full extent proposed by SWC."

We reviewed our findings following the review of actual expenditure in 2005 and the greater step change in expenditure between 2005 and 2006. We still question the achievability of the program of works given the proposed significant increase in operational scheme activity between these two years. We have therefore made a marginal change to our February 2005 proposals, which reduces expenditure in years 2005 and 2006 and presents a more achievable profile.

Operating Costs due to Capital Expenditure

In our February 2005 report we commented that;

"We reviewed the methodology used to derive operating costs from capital expenditure. We looked at a representative sample of schemes in both the water and wastewater services. The methodology for deriving operating costs was variable. We identified the need to improve the robustness of these estimates consistent with best practice. The implementation of activity based costing should enable estimates of operating cost increases to be made with greater confidence. To reflect the potential improvements in operating cost estimates we have applied efficiency factors, consistent with capital efficiencies."

Sydney Water's Supplementary Submission does not provide any further information to change our view on the adjustments we made in February.

3.4 Wastewater Operating Expenditure

The following table outlines the variation in wastewater opex between the November 2004 and March 2005 pricing submissions.

$M 2004/05 (Real)	2005	2006	2007	2008	2009
Wastewater					
Nov 2004 AIR/SIR	275.53	285.29	286.20	285.64	286.65
Annual Variance		9.76	0.91	-0.56	1.01
		3.5%	0.3%	-0.2%	0.4%
March 2005 AIR/SIR	260.53	283.63	283.96	283.32	284.47
Annual Variance		23.10	0.32	-0.64	1.15
		8.9%	0.1%	-0.2%	0.4%
Variance from Nov-Mar	**-15.000**	-1.66	-2.25	-2.32	-2.18

Table 6: Variation in Wastewater Opex between Pricing Submissions ($M 04/05)

Base Year Variations (2005) to Wastewater Opex

The 2005 wastewater base year projections have reduced by $15M from the November 2004 submission. The AIR indicates that for the 2005 financial year, cost variances between the November 2004 AIR and the March 2005 AIR for the wastewater business activity include:

Increases in:

- labour $0.9M;
- external consultants $0.025M;

Reductions in:

- other $5.0M;
- employee provisions $7.4M;

- other provisions $3.5M.

Price Control Period Wastewater Opex Variations

Based on information in the AIR (adjusted for inflation), the following table outlines the major cost shifts from 2005 to 2006.

	Difference between Nov 04 and Mar 05 Estimates ***2005***	**Variations between 2005-2006** ***March***	**Variations between 2005-2006** ***Now Indicated***
Labour	+ $0.9M	- ($5.8M)	- ($4.5M)
External Consultants	+ $0.03M	0	0
Hire & contract services	0	+ $22.4M	+ $16.6M
Materials	0	- ($0.3M)	- ($0.3M)
Energy	0	+ $0.8M	+ $0.8M
Other	- ($5.0M)	- ($5.3M)	+ $2.1M
Employee Provisions	- ($7.4M)	- ($0.6M)	- ($0.6M)
Other Provisions	- ($3.5M)	- ($1.4M)	+ $9.1M
Total	**- ($15M)**	**+ $9.76M**	**+ $23.1M**

Table 7: Variations in Wastewater opex as indicated in the AIR ($M 04/05)

Sydney Water's supplementary SIR indicates that additional efficiencies and cost savings are now included result in opex reductions ranging from $1.6M to $2.3M p.a.

Common to the water service, there is a significant increase in hired and contract services, mainly as a result the increase in opex schemes which under previous accounting rules were considered as capital expenditure. We questioned in our February 2005 report the achievability of a significant increase in expenditure over the first two years and rephased this. In view of the reduction in the 2005 expenditure and a more significant increase to 2005 and 2006, we have applied a similar rephasing.

Sydney Water has indicated that the significant change to wastewater costs for the pricing path is associated with the rephasing of SWOOS chemical dosing, also classified in hired and contract services, which has deferred commencement of dosing costs of $3.4M in 2004/05 to 2005/06, plus a write down of the estimated savings from business improvement projects from $240 to $180M p.a.

Sydney Water explained to us at the meeting on 22 July that expenditure changes on employee provisions and other provisions were one-off costs and atypical of the base year. Allowing for the impact of these atypical costs on the base year, quantified in Table 4, there is a net reduction of $4.1M on base year expenditure which may be considered as typical and continuing.

3.5 Labour Costs and Superannuation

We note that Sydney Water has now included the impact of cost increases resulting from the November award negotiations and has also recognised reduced requirements for superannuation provisions resulting in an overall cost reduction. While we would have expected that ongoing labour cost increases would be absorbed over the price control period we note that overall Sydney Water still proposes ongoing reductions in total labour costs. While changes in labour costs should normally be managed within the opex ceiling over a price control period, as this has been raised by SWC in the Supplementary Submission, we have included these changes within recommended operating costs.

3.6 Stormwater Operating Expenditure

While the total stormwater opex remains the same, we note that the supplementary SIR now includes a continuation of the 'bush regeneration' activity for the full pricing path, and a reduction in the projections for opex associated with growth and new mandatory and discretionary standards. The opex variations have resulted in an increase in 'base' opex and consequently, a reduction in the unidentified cost reductions. As a result, we have reassessed stormwater opex efficiency and revised efficiency targets are now recommended.

3.7 Changes in Opex not due to Capex

One of the most significant variations in the supplementary SIR shows up in the water and wastewater line items for *"opex effects of mandatory standards (no capex involved)*". With the cost reductions now identified for 2005, the quantity of additional 'base' operating costs identified for 2006 equate to a $20.9M increase for water and a $14.4M increase for wastewater.

From our previous analysis based on the March 2004 SIR, these figures only indicated increases of $5.2M for water and $0.5M for wastewater, and were more than offset by the unidentified efficiencies within corporate opex.

The AIR for wastewater would appear to indicate that this expenditure relates to reductions in increases for "hire and contract service", $5.8M; and increases in "other", $7M; "other provisions", $10.5M; and reduction in the decrease in "labour", $1.3M.

These unidentified variances add support to our recommendations for rephasing of the opex increase projected for 2006.

3.8 Unidentified Opex Increases

The total of all efficiencies and rephasing identified in our Draft Supplementary Report was predicated on SWC being able to explain cost reductions of $32M during 2005, and unidentified cost increases during 2006 of $20.9M for water and $14.4M for wastewater.

SWC has been advised of unidentified opex increases of $20.9M for water and $14.4M for wastewater. Our initial review of opex did not take these variances into account pending explanation by SWC.

SWC has subsequently identified one-off reductions which occurred in 2005 as indicated in the table below:

For water:		
	Total Variance Nov 04 to Mar 05	$-17.1M
	Bulk Water Charges	$ -5.4M
	BOO	$ -1.6M
	Employee Provisions	$ -6.9M
	Total Atypical costs	$-13.9M
	Total typical and ongoing costs	$-3.2M
For wastewater		
	Total Variance Nov 04 to Mar 05	$-15.0M
	Employee Provision	$ -7.4M
	Other	$ -3.5M
	Total Atypical costs	$-10.9M
	Total typical and ongoing costs	$-4.1M

Table 8 One Off Reductions in Opex in 2005

Source: SWC SIR March 2005 table SIR opex and response to Information Request June 2005.

At a meeting with IPART and SWC on 22 July, we asked Sydney Water to explain these variances. We received its response to the issues on 27 July but this was too late to review in the level of detail which may be warranted prior to the issue of this final report to meet the IPART review timetable. We have taken a view that the most likely base year operating cost is the 50percentile of the 'typical and ongoing costs' recognising the uncertainties in cost variations. This results in a $1.6M reduction in water and a $2.1m reduction in wastewater operating costs.

3.9 Revised Operating Cost Efficiency Projections

We have adjusted our recommended efficiency targets based on the additional efficiencies identified in the supplementary data provided by Sydney Water. The reassessment has resulted in a change to the efficiency target for water in 2007 and stormwater in 2009. The following outlines our recommended opex efficiency targets.

	Efficiency (%)			
	2006	**2007**	**2008**	**2009**
Continuing efficiency p.a.	0.8	0.8	0.8	0.8
Catch-up efficiency p.a.	1.5	1.5	1.5	1.5
Combined efficiency p.a.	2.3	2.3	2.3	2.3
Cumulative effect	2.3	4.6	6.9	9.2

	Efficiency (%)			
	2006	**2007**	**2008**	**2009**
Target Efficiencies Adjusted for Controllable Costs				
Water (40%)	0.9	1.8	2.8	3.7
Wastewater (55%)	1.3	2.5	3.8	5.1
Less SWC identified efficiency (cumulative)				
Water	1.0	1.7	2.7	3.1
Wastewater	1.8	2.7	3.7	4.4
Stormwater (unidentified)	7.2	3.8	4.1	4.1
Corporate	6.4	8.1	9.2	10.3
Net Efficiency Proposed (cumulative)				
Water	0.0	0.1	0.1	0.6
Wastewater	0.0	0.0	0.1	0.7
Stormwater	0.0	0.0	0.0	1.0
Corporate	0.0	0.0	0.0	0.0

Table 9: Recommended Opex Efficiencies (% per annum)

3.10 Revised Operating Cost Projections

Our recommended opex projections based on the supplementary data provided by Sydney Water are outlined in Table 6. Apart from the issues discussed, we find limited reason to substantially readjust our previous recommendations. Sydney Water has demonstrated the ability to address ongoing efficiency targets as indicated by the $32.1M (3.7%) saving for 2005. In this context, the Corporation continues to demonstrate an ability to reallocate and control costs across a wide range of expenditure categories and far in excess of the additional $12.8M now sought in the Supplementary Submission. As a result, a number of opex rephasing opportunities have been identified and our recommendations outlined in the following tables.

Water Operating Expenditure

The cumulative result from our review on water opex review is outlined in the following table.

$M (04/05)	**2005**	**2006**	**2007**	**2008**	**2009**	**2006 to 2009 Total**
		Proposed Price Control Period				
SWC Supplementary Base (March 2005)	**394.2**	**458.8**	**461.5**	**461.5**	**476.3**	**1858.1**
less bulk water charges	119	-137.5	-149.5	-162.2	-177.6	-626.8
less recycle rephasing		-1.5	-2.6	-3.0	-3.0	-10.1

SWC Supplementary Base	**275.2**	**319.8**	**309.4**	**296.3**	**295.7**	**1221.2**
Atkins/Cardno adjustments						
Growth rephasing1		-1.0	-1.6	-2.0	-2.5	-7.1
Rephase opex projects		-5.0	-2.5	2.1	0.0	-5.4
Efficiency: opex due to capex1		-0.1	-0.2	-0.5	-0.5	-1.3
Opex Efficiency adjustments1		0.0	-0.5	-0.5	-2.8	-3.8
Adjustment to base year		-1.6	-1.6	-1.6	-1.6	-6.4
Total adjustment		**-7.7**	**-6.4**	**-2.5**	**-7.4**	**-24.0**
Recommended Operating Costs excluding SCA charges		**312.1**	**303.0**	**293.8**	**288.3**	**1197.2**

Table 10: Recommended Water Operating Expenditure ($M 04/05)

1 Unchanged from February 2005

Wastewater Operating Costs

The cumulative result from our review on wastewater opex review is outlined in the following table.

$M (04/05)	**2005**	**2006**	**2007**	**2008**	**2009**	**Variance 2005 to 2009**
		Proposed Price Control Period				
SW Supplementary	**260.5**	**283.6**	**284**	**283.3**	**284.5**	**1135.4**
Atkins/Cardno adjustments						
Growth rephasing[1]		-0.6	-1	-1.3	-1.7	-4.6
Rephase opex projects		-6	-3.5	0	0	-9.5
Efficiency: opex due to capex[1]		-0.2	-0.3	-0.4	-0.6	-1.5
Opex Efficiency Adjustments[1]		0	0	-0.3	-2	-2.3
Adjustment to base year		-2.1	-2.1	-2.1	-2.1	-8.4
Total adjustment		**-8.9**	**-6.9**	**-4.1**	**-6.4**	**-26.3**
Recommended Operating costs		**274.7**	**277.1**	**279.2**	**278.1**	**1109.1**

Table 11: Recommended Wastewater Operating Expenditure ($M04/05)

1 Unchanged from February 2005

3.11 Recommended Operating Expenditure

Recommended operating costs are summarised in Table 12 below.

$M 04/05	2006	2007	2008	2009	Total
Sydney Water proposal (Mar 2005 SIR)					
Water	321.3	312	299.3	298.7	1,231.3
Wastewater	283.6	284	283.3	284.5	1,135.4
Stormwater drainage	7.6	7.9	7.8	7.7	31.1
Corporate	144.8	135.9	130.1	126.3	537.1
Total agency proposed (Mar 2005 SIR)	**744.6**	**733.3**	**723**	**715.6**	**2,916.6**
Atkins/Cardno recommendation (Feb 05)					
Water	302.1	299.6	296.4	288.7	1,186.8
Wastewater	279.4	282.4	283.6	282.3	1,127.7
Stormwater drainage	7.5	7.8	7.8	7.8	30.9
Corporate	144.8	135.9	130.1	126.3	537.1
Total	**733.8**	**725.7**	**717.9**	**705.1**	**2,882.5**
Tribunal's Draft Determination					
Water	302.1	299.6	296.4	288.7	1,186.8
Wastewater	279.4	282.4	283.6	282.3	1,127.7
Stormwater drainage	7.5	7.8	7.8	7.8	30.9
Corporate	144.8	135.9	130.1	126.3	537.1
Total	**733.8**	**725.7**	**717.9**	**705.1**	**2,882.5**
Atkins/Cardno Supplementary Report					
Water	312.1	303	293.8	288.3	1197.2
Wastewater	274.7	277.1	279.2	278.1	1109.1
Stormwater drainage	7.6	7.6	7.6	7.6	30.4
Corporate	144.8	135.9	130.1	126.3	537.1
Total	**739.2**	**723.6**	**710.7**	**700.3**	**2873.8**

Table 12: Opex Recommendations ($M 04/05)

Note: Water opex includes Demand Management Fund but excludes Bulk Water Purchases

4 Capital Expenditure

4.1 Review of Capital Expenditure Issues

Sydney Water Corporation has submitted a revised SIR dated March 2005 which reports variations in expenditure when compared with the SIR submitted in November 2004. This revised SIR is summarised in Table 13 below.

$M (04/05)	2005	2006	2007	2008	2009
November SIR		**Price Control Period**			
Water	111.0	202.7	244.4	229.3	192.6
Wastewater	308.6	383.4	391.0	381.3	295.6
Stormwater	19.5	12.9	6.2	6.2	6.2
Corporate	47.7	52.7	49.5	33.0	33.0
Total	**486.8**	**651.7**	**691.1**	**649.8**	**527.4**
March SIR					
Water	63.5	117.6	183.0	239.4	258.2
Wastewater	280.5	328.7	356.9	357.3	282.6
Stormwater	11.4	14.8	9.2	6.2	6.2
Corporate	44.7	48.8	55.2	48.8	31.0
Total	**400.1**	**509.9**	**604.3**	**651.7**	**578.0**
Variance March - Nov					
Water	-47.5	-85.1	-61.4	10.1	65.6
Wastewater	-28.1	-54.7	-34.1	-24.0	-13.0
Storm drainage	-8.1	1.9	3.0	0.0	0.0
Corporate	-3.0	-3.9	5.7	15.8	-2.0
Variance	**-86.7**	**-141.8**	**-86.8**	**1.9**	**50.6**

Table 13: Comparison of March 2005 Expenditure with November SIR by Service ($M 04/05)

Note: Expenditure shown for 2005 relates to the previous price control period.
Source: SWC SIRs November 2004 and March 2005

We noted three key issues which are discussed further in the following sections.

(i) The significant reduction in the 2005 expenditure from November 2004 to March 2005 equivalent to about 18% of planned. We discuss this in Section 4.2 below;

(ii) The significant reduction in total expenditure over the price control period equivalent to 7.5% of originally planned. We discuss this in Section 4.3 below; and

(iii) A reprofiling of this revised expenditure to show significant reductions in the first two years followed by some increases.

4.2 Expenditure in 2005

Sydney Water explained in response to our supplementary queries that expenditure for the year 2004/05 was now forecast to outturn at $400M compared with the $487M forecast in the November SIR. These amounts exclude the $20M borrowing cost included by Sydney Water which we recommended should be addressed within the IPART modelling process. Sydney Water provided a detailed explanation of these changes in response to our Information Request. The reasons for the reduction in expenditure are summarised in Table 14 below.

$M 2004/05	November 2004	March 2005	Difference Jun – Nov	Comments
Existing mandatory standards	246	198	-48	Deferral of STP renewals based on reassessment of need ($6M). Delays to IICATS water renewals for technical reasons ($3M) Critical water mains renewals carried over to 05/06 ($6M). Reticulation mains renewal delayed for contract and resource reasons ($10M) Stormwater pipes and channel renewals in City delayed ($3M) STP SCADA renewal double counting ($5M) Balance from several schemes ($15M).
Growth	70	56	-14	Earlier planning projections not realised.
New Mandatory Standards	95	82	-13	Scope of stormwater environmental improvement program revised ($6.5M) SPS upgrade program efficiency gains and early delivery ($4.5M) Balance from several schemes (£2M)
NSW Government Programs	50	48	2	Some delays to projects ($2M)
Business efficiency	26	16	10	Property rationalisation deferred ($6M) WAMS and IICATS systems deferred due to resource constraints ($4M)
Total	**487**	**400**	**87**	

Table 14 Analysis of Expenditure in 2005 ($M 04/05)

Source: SWC Response to Atkins Cardno Information Request Attachment 3

From our analysis of these schemes we formed the view that $52M was due to slippage of schemes (about 10% of the planned program), $20M was due to change in scope (4%) and $10M related to efficiency gains (2%). Double counting of a SCADA scheme accounted for $5M.

The significant variance on the current year expenditure between November 2004 and March 2005 is indicative of some shortcomings in the capital planning process. It is likely that SWC is being optimistic by including schemes in the capital programme when the scope and risks of the work has not been fully developed and assessed. It might be appropriate to allow longer lead times for scheme development to reduce the risk of overruns in scope and cost and provide the ability to seek efficiencies.

Our view of prudent expenditure presented in the February report needs to recognise this reduction in reported expenditure in March 2005 submission. While we have not audited the 2005 expenditure in detail, from the range of schemes we reviewed for the main submission and this supplementary review, we are able to confirm that this work is prudent. We add that expenditure of $20M for borrowing costs is a financing cost and we understand is addressed in the IPART modelling process. We have not therefore included this as 'prudent expenditure' as we understand this is allowed for separately in the modelling.

We conclude that there has been a material reduction in expenditure for the year ending June 2005 mainly due to slippage of schemes but with some changes in scope and efficiency gains

4.3 Expenditure for 2006 to 2010

The Sydney Water capital expenditure proposals in Table 13 from the SWC March 2005 Supplementary Submission show a net increase of $176M (7.5%) on the proposals in the November submission.

We summarise Sydney Water's March submission expenditure by driver in Table 15 below. This table presents the variance analysis between the March 2005 and November 2004 submissions. We then discuss the changes in the value and timing of the proposed expenditure and the impact on the current price determination process.

($M 04/05)	**2005**	**2006**	**2007**	**2008**	**2009**
		Price Control Period			
November SIR					
Existing Mandatory Standards	246	323	308	281	288
Growth	70	188	256	254	139
New Mandatory Standards	95	45	50	64	73
Discretionary	0	3	0	0	0
Business Efficiency	26	21	17	16	17
Government Programs	50	72	60	35	10
Total	**487**	**652**	**691**	**650**	**527**

($M 04/05)	2005	2006	2007	2008	2009
		Price Control Period			
March SIR					
Existing Mandatory Standards	198	284	292	282	261
Growth	56	112	172	248	217
New Mandatory Standards	82	47	44	63	80
Discretionary	0	0	3	0	0
Business Efficiency	16	22	30	16	17
Government Programs	48	45	63	43	3
Total Mar SIR	**400**	**510**	**604**	**652**	**578**
Variance (Nov to March)					
Existing Mandatory Standards	-48	-39	-16	1	-27
Growth	-14	-76	-84	-6	78
New Mandatory Standards	-13	2	-6	-1	7
Discretionary	0	-3	3	0	0
Business Efficiency	-10	1	13	0	0
Government Programs	-2	-27	3	8	-7
Total Variance	**-87**	**-142**	**-87**	**2**	**51**

Table 15 Comparison of March 2005 Expenditure with November SIR by Driver ($M 04/05)

Note: Expenditure shown for 2005 relates to the previous price control period.
Source: SWC SIRs November 2004 and March 2005

Sydney Water has provided detailed explanations for these variances within its Supplementary Submission dated March 2005 and responses to our Information Request provided in June 2005.

The main reasons for the cost changes from the November submission are ($M 04/05 pre efficiency);

(i) Existing Mandatory Standards (-$81M): critical water mains (-$10M), sewage treatment works asset renewals (-$36.5M) and double counting of the SCADA renewal project in the November submission ($30M). These works are offset by the advancement of meter installation work to meet active leakage reduction targets;

(ii) Growth: (-$88M): this results from a major reappraisal of the certainty and timing of potential growth schemes. A key issue is the reprofiling of expenditure with a reduction of $160M in the first two years and an increase of $72M in the latter two;

(iii) Government Programs (-$23M).

In addition there has been minor reprofiling of expenditure for New Mandatory Standards and Discretionary Standards which is not material. Business efficiency expenditure has also been reprofiled.

We comment below on specific variance in expenditure.

Existing Mandatory Standards

Sydney Water reports a reduction of $81M over the four year price control period. Part of this amount related to double counting of the cost of SCADA system renewal due to a data input error. We have removed this double counting within our assessment of efficient expenditure.

SWC has also advised that the revised capitalisation policy arising from the new International Accounting Standards has resulted in some $3M of reservoir renewal work being transferred to operating costs. We have accepted this change.

Water Mains Renewal

Sydney Water explained that a $10M saving had been achieved from the critical mains renewal program following a review of the outcomes of the current pilot program. SWC added that new techniques for assessing asset condition have enabled it to better target renewals. This $10M saving is shown for year 2005/06 with the original expenditure in future years. We reviewed this activity in detail for the February Report and confirmed our support for the renewal program. We were concerned about the significant increase in renewal activity proposed and the need for sufficient time for investigations and planning for what are major and difficult works. We formed the view that 80% of the 53km length proposed could be achieved over the price control period. The slippage reported in 2005 and the further studies planned in the current year have supported our earlier view on achievability. We fully support the investigations and application of new assessment techniques which should contribute to the efficiency targets we have proposed.

Bulk Water Meters

The agency has advanced some expenditure for the acceleration of bulk water meters as part of the leakage monitoring strategy. This is consistent with our recommendation in our report to IPART *'Potential Leakage Requirements for Sydney Water'*. This has been achieved through a balancing of priorities within the capital program.

Water Service

The total expenditure for 'Existing Mandatory Standards' is shown in the spreadsheet Attachment A to the SWC response to our Information Request. We noted that the total expenditure for the Water Service was relatively unchanged from the November 2004 submission. The savings in critical water main renewals (-$12M) are offset by increases in other activities including water treatment renewals ($4.1M), distribution mains renewals ($4.5M) and reservoir renewal works ($11.3M). Savings in SCADA (-$5.6M) are also identified.

We have looked again at the achievability of the Water Service renewals program, informed by the $25M under-expenditure in 2005. SWC is planning to increase from a $54M expenditure in 2005 to $91M in 2006 and $116M in 2007. While the relative priorities on asset renewal are a matter for SWC to manage, we remain unconvinced that this level of program can be achieved. We suggest a small adjustment to the expenditure profile to give greater comfort that the program can be achieved and efficiencies delivered.

Sewage Treatment Plant Renewals

Sydney Water explained that further asset planning work has resulted in the reduction of $36.5M over the price control period for the asset renewals programme at sewage treatment works; in particular, renewal programs at North Head, Bondi, Liverpool and Glenfield.

Wastewater Service

The total expenditure for 'Existing Mandatory Standards' is shown in the spreadsheet Attachment A to the SWC response to our Information Request. We noted that total expenditure had reduced by $87M including $24M for double counting of the SCADA investment. Specific reductions in the March submission related to changes in the scope of schemes including critical sewer renewals (-$16M), SPS renewals (-$22M), North Head STP (-$9.5M), Bondi (-$4.4M) and SCADA (-$12M). We formed the view that there were significant changes in the expenditure proposals since the November 2004 submission due to cost reductions and rephasing of work.

We have looked again at the achievability of the Wastewater Service renewals programme, informed by the $16M under-expenditure in 2005. Sydney Water is planning to increase from a $137M expenditure in 2005 to $152M in 2006 and reducing in future years. While the relative priorities on asset renewal are a matter for SWC to manage, we are concerned about the achievability of the work. We suggest a small adjustment to the expenditure profile to give an even profile over the price control period which is similar to the actual 2005 expenditure. This is more achievable and will allow efficiencies to be delivered.

Growth

Growth expenditure comprises infrastructure to service growth in established areas, in new development areas, works to be included in the next DSPs and New Sectors. Infrastructure relates to water, wastewater and recycled water services. Sydney Water reports a reduction of $88M over the four year price control period from the earlier November 2004 submission. The assessment in our February Report was based on information provided by SWC in December 2004 in its spreadsheet '*growth matrix for IPART91204*'.

We noted that the SWC expenditure for water and wastewater services does not differ significantly from our February 2005 Report, which in turn was based on information provided by Sydney Water in December 2004.

We revisited growth operating and capital expenditure for recycled water schemes following discussions with IPART and SWC on 22 July 2003.

In its March Supplementary Report, Sydney Water had revisited recycling proposals in greenfield release areas and recycled water projects. It reported an increase in expenditure above its proposals in December 2004. This was as a result of the Government's decision on 9 December 2004 regarding the release of land in the North West and South West. Sydney Water identified specific schemes with related expenditure over the price control period. Schemes are classified as either 'committed' or 'potential'. The phasing of expenditure gives the emphasis on planning in the early years of the Determination and delivery of growth assets in latter years. We have accepted the proposed expenditure for 'committed' schemes on the basis that there is a good certainty that these will proceed in accordance

with the scope and timing proposed by Sydney Water. Where schemes are identified as 'potential', we have assumed a 50% probability that these schemes will be implemented within the scope and phasing proposed. This leads to an adjustment to expenditure over the period. Proposed expenditure is shown in Table 16.

Sydney Water comments on the changes to the institutional arrangements for the provision of infrastructure in these new development areas with the proposal for a Growth Centres Commission. The extent to which assets will be provided by SWC is uncertain.

The information provided by Sydney Water in December 2004 showed that about 60% of water and 75% of wastewater growth expenditure was in established areas. The remaining water and wastewater expenditure was in new development areas where asset provision may be through the Growth Centres Commission or Sydney Water. For the purpose of the price path Determination, we have assumed that these assets are provided by Sydney Water.

Proposed recycled water expenditure includes growth-related assets (48% of expenditure) and specific schemes (52%). Some 25% of the total expenditure relates to 'committed' growth areas; some 12% of expenditure relates to 'committed' recycling schemes mainly in established areas. We have assumed that, allowing for the probability of 'potential' schemes being promoted, all this proposed workload will be undertaken by Sydney Water. Should implementation of new growth areas be carried out by other agencies, the impact would be to reduce expenditure by some $79M over the price control period.

($M 04/05)	**2006**	**2007**	**2008**	**2009**
Growth	**Price Control Period**			
Assets Free of Charge	205.3	145.4	124.5	116.3
Water	11.5	27.9	48.8	67.4
Wastewater (including capitalisation of labour costs)	93.4	114.0	129.3	67.5
Recycling from developers	5.1	13.8	33.9	40
Recycling schemes	3.3	16.6	35.6	42.3
Total Growth expenditure proposed by SWC	**111.9**	**172.3**	**247.6**	**217.2**
Apply probability factor to growth recycle schemes	0	0	-7.1	-14.9
Apply probability factor to other recycle schemes	0	-5.9	-15.6	-15.2
Total growth	**111.9**	**166.4**	**224.9**	**187.1**

Table 16 Proposed Growth Expenditure ($M 04/05)

Source: SWC spreadsheet growth matrix for IPART91204 and Attachment 1 of the June Response to Information requirements

We have confirmed that proposed expenditure excludes assets provided free by Developers. These free assets do generate operating costs which we discuss in Section 3. We assume that 'growth in established areas' are included in Developer Service Plans (DSPs). SWC has identified potential additional expenditure for inclusion within the next DSP revisions in established areas. This expenditure comprises about two thirds of the total developer growth capex. We add that these expenditures exclude capital efficiencies which should be applied to all expenditure before inclusion within DSPs.

Expenditure for 'growth in new development areas' and 'new sectors' apply to areas where Developer Service Plans are not fully defined, and the extent to which assets will be provided by SWC is uncertain. This expenditure comprises about one third of the total developer growth capex. The agency has suspended further planning for these areas until the institutional responsibilities are confirmed.

Expenditure is also included for specific water recycling schemes at five sites for the provision of recycled water to potential customers in existing development areas. These schemes reflect the potential for possible water re-use although business cases have yet to be developed. While there are likely to be benefits for specific users, costs and benefits of the schemes have yet to be demonstrated. As such the schemes are speculative at this stage. Sydney Water has reviewed the phasing of recycled water schemes that are not funded by growth. Schemes comprise "committed" and "proposed". Nearly all those schemes are independent of growth drivers. The revised expenditure profile still shows a significant peak to 2009. While we support the promotion of these recycling schemes to reduce the use of potable water, there are still uncertainties relating to the justification, scope and timing of this work. These schemes should be reviewed at the next price path review to verify that investment is prudent.

We have accepted the expenditure proposed by SWC as being consistent with our February Report. We add that there are increasing uncertainties as to whether SWC would be required to provide all or some of this infrastructure.

New Mandatory Standards

This expenditure relates to the Pollution Reduction Program requirements for sewage overflow abatement under Sydney Water's sewage transport system licences from 1 July 2005. We note that the DEC does not consider this expenditure to be new but a continuation of the existing programs.

One minor change is a small ($2M) increase in the Stormwater Environmental Improvement Program due to delays to the scheme resulting in slippage of some expenditure from 2005 into 2006.

Overall, there is no material change in total expenditure but some minor reprofiling.

Business Efficiency

Sydney Water proposes a $14M increase in expenditure including $9M for the fit-out costs for the West Ryde site; the remainder is an increase in costs for the depot rationalisation program. SWC provided details in response to our Information Request, which showed that as a result of a rationalisation of depots, it would be possible to realise between $26M and $32M from the sale of sites plus an annual saving of $0.5M per annum net of increased lease costs at some sites. This

strategy would require consolidation of activities at the West Ryde site with associated fit out costs.

We consider this a rational proposal and logical to generate efficiencies. We have assumed that the inclusion of this expenditure, that capital contributions from the sale of these depots, asset disposals and the operating efficiencies are included within the IPART modelling.

NSW Government Programs

SWC reports a reduction of $23M compared with the November 2004 submission. A data entry error led to double counting of expenditure for the Blackheath STP and Bombo STP where 2006 expenditure was also included in mandatory standards. Expenditure has also been reprofiled but with no material impact on total expenditure.

4.4 Recommended Capital Expenditure

Our approach to determining recommended allowable capital expenditure is based on our detailed assessment of the Sydney Water Supplementary Report and subsequent response to our Information Request in June 2005, our February 2005 Report on SWC's earlier submission and the IPART Draft Determination.

We have followed a staged approach based on our findings discussed in earlier sections.

(i) We have made adjustments for slippage of expenditure after SWC advised that the likely outturn expenditure for 2005 had reduced to $400M. We have assumed that SWC has accounted for this slippage within proposed expenditure for future years;

(ii) We have generally accepted the changes to existing mandatory standards proposed by SWC although the combination of a significant reduction in 2005 actual expenditure against planned and the significant increases from this base proposed in 2006 and 2007 has caused us to challenge the achievability of these targets. We have proposed some modest reprofiling of total expenditure to reflect these concerns. It would be for Sydney Water to manage the phasing of respective priorities for asset renewal work within these caps. For water assets, there is an increasing trend to reflect additional asset replacement. Expenditure for wastewater asset renewal would continue at a similar rate as actual expenditure in 2005;

(iii) The March 2005 expenditure profile for growth is generally consistent with views on reprofiling growth expenditure set out in our February 2005 Report. Expenditure for water and wastewater assets is included on the assumption that SWC would provide infrastructure to new development areas, but this is far from clear. We have included recycled water expenditure for 'committed schemes' and applied a probability factor to 'potential' recycling schemes. The impact is to allow a higher level of expenditure than we proposed in March 2005 but not the full extent as proposed by Sydney Water;

(iv) We have accepted minor rephasing of New Obligations and the data error for NSW Government Programs;

(v) We have accepted the additional Business Expenditure for depot rationalisation on the assumption that capital from asset sales are included as asset disposals within the IPART modelling process;

(vi) We have applied capital efficiencies at the same level as proposed in our February 2005 Report.

We summarise expenditure proposals by driver in Table 17 below. We consider that the resulting capital program provides the basis for SWC to generate incentives and encourage innovation to undertake its business and functions.

($M 04/05)	**2005**	**2006**	**2007**	**2008**	**2009**
Recommended Expenditure		**Price Control Period**			
Existing mandatory standards	198	255	279	302	283
Growth	56	112	166	225	187
New mandatory standards	82	47	44	63	80
Discretionary	0	0	3	0	0
Business Efficiency	16	22	30	16	17
Government Programs	48	45	63	43	3
Total	**400**	**481**	**585**	**649**	**570**
Capital Efficiency %	0	3.5	5	7.5	9
	400	**464**	**555**	**600**	**519**

Table 17 Derivation of Recommended Capital Expenditure by Driver ($M 04/05)

The brief asks us to identify and segregate the capital works associated with assets for which developers will either contribute to the cost of provision or will build and hand over to the Agency. We discuss this in Section 4.3 above. We add that there are increasing uncertainties as to whether SWC would be required to provide a substantial part of this infrastructure.

We also summarise capital expenditure proposals by service area in Table 18.

($M 04/05)	2005	2006	2007	2008	2009
		Price Control Period			
Recommended Expenditure with efficiencies					
Water	64	103	155	206	225
Wastewater	281	300	339	343	261
Stormwater	11	14	9	6	6
Corporate	45	47	52	45	28
Total	**400**	**465**	**555**	**600**	**519**

Table 18 Derivation of Recommended Capital Expenditure by Service Area ($M 04/05)

Note: Numbers may not add exactly due to rounding

Our view of prudent expenditure in 2005 has changed from the February 2005 Report as a result of further information provided by SWC in June 2005. We confirmed that the final outturn expenditure was $400M. While we have not audited the 2005 expenditure in detail, from the range of schemes we reviewed for the main submission and this supplementary review, we are able to confirm that this work is prudent. We add that expenditure of $20M for borrowing costs, excluded from Table 18 above is a financing cost and we understand is addressed in the IPART modelling process. We noted from our analysis of 2005 expenditure that some 2% of the variance was due to efficiency. This supports our view that there is scope for further efficiencies within the expenditure proposals.

We summarise the adjustments applied to Sydney Water's submission in Table 19 below. We have accepted SWC's proposed total expenditure over the price control period, except for the application of a probability factor to some recycling schemes described as 'potential' to derive a most likely level of expenditure. We have reprofiled expenditure for existing mandatory standards as we considered that a 28% increase in expenditure from actual 2005 to planned 2006 was not achievable and consistent with delivering capital efficiencies. Even with this reprofiling, the planned 16% increase to 2006 and a further 20% increase in 2006 is challenging.

($M 04/05) 2005	2006	2007	2008	2009
Variance Analysis	Price Control Period			
Rephasing	-28.4	-14.0	19.4	22.5
Deferral	0.0	-6.0	-23.0	-30.0
Efficiencies	-16.9	-29.2	-48.6	-51.3
Total Variance	**-45.3**	**-49.2**	**-52.2**	**-58.8**

Table 19 Variance Analysis comparing SWC March SIR with Recommended Expenditure ($M 04/05)

5 Summary of Recommended Expenditure

5.1 Operating Expenditure

The recommended expenditure is shown in Table 20 below and is compared with the Agency forecast and the Tribunal's Draft Determination.

$M 04/05	2006	2007	2008	2009	Total
Sydney Water proposal					
Water	321.3	312	299.3	298.7	1,231.3
Wastewater	283.6	284	283.3	284.5	1,135.4
Stormwater drainage	7.6	7.9	7.8	7.7	31.1
Corporate	144.8	135.9	130.1	126.3	537.1
Total agency proposed (Mar 2005 SIR)	**744.6**	**733.3**	**723**	**715.6**	**2,916.6**
Tribunal's Draft Determination					
Water	302.1	299.6	296.4	288.7	1,186.8
Wastewater	279.4	282.4	283.6	282.3	1,127.7
Stormwater drainage	7.5	7.8	7.8	7.8	30.9
Corporate	144.8	135.9	130.1	126.3	537.1
Total	**733.8**	**725.7**	**717.9**	**705.1**	**2,882.5**
Atkins/Cardno Supplementary Report					
Water	312.1	303	293.8	288.3	1197.2
Wastewater	274.7	277.1	279.2	278.1	1109.1
Stormwater drainage	7.6	7.6	7.6	7.6	30.4
Corporate	144.8	135.9	130.1	126.3	537.1
Total	**739.2**	**723.6**	**710.7**	**700.3**	**2873.8**

Table 20 Recommended Operating Expenditure, Net of Efficiency $M 04/05)

Note: Water opex includes Demand Management Fund and excludes Bulk Water Purchases

The overall impact of these operating cost adjustments is equivalent to a 1.5% reduction in the proposed expenditure over the period.

We confirm that there were no issues of transfer of costs between the regulated and unregulated parts of the Business.

5.2 Capital Expenditure

We conclude that there has been a significant reduction in expenditure for the year ending June 2005. The $87M reduction (18% of total program) was mainly due to slippage of schemes, with some change in scope, efficiency and double counting.

The recommended expenditure for the price control period is shown in Table 21 below. We compare our proposals with the IPART Draft Determination. This profile takes account of slippage from 2005 and reprofiling capital maintenance expenditure. There were no changes to the growth expenditure proposals as the profile reflected the proposals in our February 2005 report. This recommended expenditure includes capital efficiencies we proposed in our February 2005 report.

($M 04/05)	2006	2007	2008	2009	Total
	Price control period				
IPART Draft Determination	553.7	577.0	592.0	553.3	2276
Sydney Water March 05 SIR	510.0	604.0	652.0	578.0	2344
Recommended expenditure	464.7	554.8	599.8	519.2	2138
Difference between SWC March 05 and recommended expenditure	-45.3	-49.2	-52.2	-58.8	-205.5

Table 21 Recommended Capital Expenditure ($M 04/05)

We have made one change to Sydney Water's pre-efficiency total expenditure over the price control period. This follows from our discussions with IPART and Sydney Water on the funding of recycled water schemes. We have applied a probability factor to some recycled water expenditure for growth and specific schemes where these were identified as 'possible' schemes. Expenditure for recycled water schemes is still substantial. It has been specifically identified in our report should the works be subject to a separate price control or implemented by another organisation.

We have rephased some expenditure for 'existing mandatory standards' where, as in our February 2005 Report, we challenged the achievability of the proposed program. We have also been influenced by the significant under-expenditure in 2005 where a greater part of this slippage was attributable to existing mandatory standards. Our variance analysis of the 2005 showed that some efficiency gains had been made.

We have made no change to the level of capital efficiencies applied.

The overall adjustment to capital expenditure is 6.2% for capital efficiency and 2.5% for deferral of some water recycling schemes. We confirm that the expenditure proposals do not include for assets for which developers will either contribute to the cost of provision or will build and hand over to the Agency.

6 References

1. Capex Asset Management and Opex Review Sydney Water Corporation Final Report, February 2005, Atkins
2. Email from IPART to Atkins 24 June 2005, 'Materiality'
3. Potential Leakage Requirements for Sydney Water, Atkins, January 2005
4. Sydney Water Corporation Draft Report and Draft Determination, June 2005, IPART
5. Sydney Water Corporation Response to Atkins Cardno Information Request, June 2005
6. Sydney Water Corporation SIRs November 2004 and March 2005
7. Sydney Water Corporation Supplementary Submission, March 2005
8. Sydney Water Corporation response to Supplementary Submission, July 2005

7 Appendices

Appendix A: PROJECT BRIEF

Consultancy Agreement

The Tribunal will extend the existing Agreement to include a review of supplementary capital expenditure and operating expenditure proposals made by Hunter Water Corporation (HWC), Sydney Water Corporation (SWC) and Sydney Catchment Authority (SCA). Consistent with the objectives outlined in the Agreement, this involves assessing for each agency's supplementary submission:

1. the efficiency of the businesses' estimates of additional operating expenditure for the period from 2005/2006 through to 2008/2009, that is, from 1 July 2005 until 30 June 2009.
2. the efficiency of proposed additional capital expenditure for the period from 2005/2006 to 2008/2009.

Atkins will also be required to participate in a roundtable discussion of issues raised in the primary and supplementary expenditure reviews. The Tribunal has reviewed the findings presented in Atkins final report and each agency's response to the findings. A roundtable discussion will provide an opportunity for each agency to debate outstanding issues regarding Atkins recommendations and methodology with the consultant in the presence of the Tribunal.

The Tribunal offers to extend the Agreement as follows:

1. Schedule 2 (Services)

   (a) In Operating Expenditure include:

   For this aspect of the review, in respect of each agency's supplementary operating expenditure proposals the consultant will be specifically required to:

   (i) provide the consultant's opinion as to the efficiency of the agency's proposed additional level of operating expenditure for each year between 2005/2006 and 2008/2009 and provide for each year estimates, with supporting reasons, of the level of operating expenditure that is required to efficiently undertake their regulated functions.

   (ii) identify and analyse any additional transfers of costs between regulated and unregulated parts of the water business, subsidiary or parent agency or businesses and comment on any such transfers which in the opinion of the consultant are inappropriate.

   (b) In Capital Expenditure include:

   For this aspect of the review, in respect of each agency's supplementary capital expenditure proposals the consultant will be specifically required to:

   a) provide an opinion as to the efficiency of each agency's capital expenditure program for the period from 2005/2006 to 2008/2009 and provide for each year estimates, with supporting reasons, of the level of capital expenditure that the consultant considers efficient in order to undertake each agency's business and functions.
   b) identify and segregate the capital works projects associated with assets for which developers will either contribute to the cost of provision or will build and possibly hand over to the agency and reconcile actual and proposed developer

funded capital expenditure with forecast capital expenditure in Development Servicing Plans.

(c) In Outputs include:

The required outputs from the supplementary consultancy are:

- a final written report for each agency which addresses the objectives of the consultancy;
- discussions and meetings with water agencies, the Tribunal and/or Tribunal Secretariat;
- participation in roundtable discussion with the Tribunal and water agencies on issues and findings from both the primary and supplementary reviews.