
Review of Sydney Water's Customer Information and Billing System

INTRODUCTION

Sydney Water is the largest water services provider in Australia with annual total revenue of \$1.4 billion and assets in excess of \$13 billion. It manages large-scale programs of capital works and maintenance. In recent years it has completed a number of projects including the \$90 million upgrade of the Cronulla sewage treatment plant and the \$460 million Alliance for the Northside Storage Tunnel. The CIBS project with a final budget of \$60 million was Sydney Water's largest IT project.

In October 2002 the Treasurer requested the Auditor-General to audit CIBS and report to Parliament. The review covers Sydney Water's performance in relation to:

- project governance
- project specification, interface with users, project management
- selection of suitable contractor
- cost estimation
- risk management.

Our work has primarily focused on relevant Sydney Water documentation and interviews with individuals mainly within Sydney Water. It has been done with the benefit of hindsight. Some individuals and parties external to Sydney Water, including PricewaterhouseCoopers (PwC) and the previous Managing Director of Sydney Water, Mr Alex Walker, were also interviewed. The focus on Sydney Water should not carry any adverse inference about Sydney Water's legal relationship with PwC.

At the time of the request for the review, Sydney Water was seeking legal advice on the project's contractual arrangements and was considering its legal options in relation to the contract. Sydney Water is considering litigation at the time of tabling this report.

Usually when the Auditor-General is aware that an agency may be involved with litigation, we would not report in such detail that it could unduly influence the outcome of the litigation. Detailed reporting may occur once the litigation has been settled. However, the Auditor-General has reviewed and reported before any possible litigation.

Potential litigation features strongly in the responses to our report. Due to the sensitivities of the timing and nature of our work, we have included responses from Sydney Water, PwC and Mr Walker. These responses generally sought only to clarify factual matters identified in our draft report and were not a general reply to all matters raised. The only deletions that we have made to the responses are where we have corrected factual errors in our draft report or wording has been clarified.

Some of Sydney Water's responses warrant further comment. Sydney Water has a concern that issues in this report had not been raised by our officers with its Audit Committee during the implementation of CIBS. Also that the Audit Office had not included a qualification in the 2002 audit opinion on this matter. The Audit Office did not, nor is it required to undertake an extensive review of each major project of an agency in order to issue an audit opinion on its financial statements. The matters raised in this report come from our recent detailed work. The Audit Office did highlight the delays in the CIBS project and the increase in costs in its 2001 and 2002 Auditor-General's Report to Parliament and 2002 Statutory Audit Report. The Audit Office also raised matters on CIBS at the September 2002 Audit Committee.

KEY BACKGROUND INFORMATION

Sydney Water's customer information and billing system (CIBS) project was intended to improve service to customers, to fill gaps in existing information systems and to provide business efficiencies. The project required the solution to be integrated with 12 existing major internal business systems and over 60 external party interfaces.

Sydney Water issued a Request for Tender to six potential suppliers in March 1999. It evaluated PricewaterhouseCooper's (PwC's) tender as providing the highest complying solution to its specified requirements, with the lowest risk and the lowest price.

Sydney Water contracted PwC in June 2000 to build and implement CIBS.

The core package came from the UK-based vendor, Severn Trent Systems (STS) which was part of the successful consortium. Following four months of analysis, CIBS then moved into the design and construct phases and was separated into discrete projects:

- release 1 (R1) - a tool to service major customers
- release 2 (R2) - electronic interaction with commercial land developers
- release 3 (R3) - the substantial phase of the project, being the core customer information and billing engine.

The R1 and R2 components were implemented, although R2 did not achieve its full functionality.

Sydney Water terminated the CIBS project on 30 October 2002. The Board stated that it had become concerned that the project was not reaching acceptable standards and that there were excessive costs and delays. The Board resolved to explore options to recover any loss or damage Sydney Water sustained.

Sydney Water had originally expected CIBS to be operational by February 2002, at a cost of \$38.2 million. Before the project was stopped, the budget had increased to \$60 million, with a further revision pending and the 'Go Live' date had moved to March 2003.

Litigation arising from the project is currently being considered by Sydney Water and PwC.

In October 2002, the NSW Treasurer asked us to undertake a comprehensive review of CIBS.

KEY FINDINGS

Project Governance

- Sydney Water had spent approximately \$61.0 million on R1, R2 and R3 up to project termination and another \$18.6 million on related CIBS hardware and software. We believe most of the \$61.0 million will be written off.
- Management did not always report important issues to Sydney Water's Board of Directors in a clear, complete and timely manner.
- The Board did not oversee the project as effectively as it might have. Its understanding of the project, in light of its complexity, was limited.
- Sydney Water may not have proceeded with CIBS if it had done a timely analysis of the Technical Proof of Concept.
- Sydney Water did not effectively follow up and address recommendations from a 'Health Check' review.
- Sydney Water did not adequately disclose the status of CIBS in its 2002 Annual Report.

Project Specification, Interface with Users, Project Management

- Project planning and specifications were inadequate, contributing to many change requests and significant additional costs and delays.
- The business case supporting CIBS was not updated for substantial changes in costs and benefits.
- The project team lacked certain skills to do the job.
- Sydney Water recognised that it needed a business improvement process, but during the project it reverted to only implementing a computer system.
- There was poor communication between the project team and the Customer Services Division. This greatly weakened the project.
- The project was approved without a corporate information technology strategy. Once Sydney Water developed this strategy, it was found that the CIBS computer architecture was not compatible.
- An integrated project plan was not maintained during the project.
- Testing was neither timely nor comprehensive.
- There was a belief in Sydney Water that IT projects of this nature and complexity would inevitably go over budget and be delayed.
- The involvement and accountability of some internal service providers was lacking.

Selection of Suitable Contractor and Contractual Arrangements

- We were unable to fully assess the selection of the contractor because Sydney Water could not provide all relevant documentation. However, it appears that Sydney Water performed an extensive evaluation and selection process.
- Contract administration was deficient. One variation to the contract transferred significant responsibilities and risks from PwC back to Sydney Water.
- The contract with PwC was weaker than the request for tender in some important areas.

Cost Estimation

- The final project estimate for CIBS was \$135.1 million, compared to the original budget of \$38.2 million.
- Significant contingencies, as well as hardware and some software costs were not in the original budget.

Risk Management

- Risk management was not effective at the corporate and project levels.
- The culture of Sydney Water suggests a belief that the outsourcing of major projects will effectively transfer all risks to the contractor.

Other

- The introduction of CIBS R2, albeit with less functionality, is a positive outcome from the project.

- Our review of CIBS was restricted in some areas because Sydney Water was unable to provide us with relevant documentation. A poor records management system exists in relation to CIBS.

RECOMMENDATIONS

The Government should consider amending the Annual Reporting legislation to require agencies to expand their reporting on large projects, explaining significant delays and whether project benefits will be achieved.

The following recommendations are specific to Sydney Water, but are applicable to the public sector as a whole:

- a current IT corporate strategy should be in place. Each IT project should be assessed prior to commencement for compatibility with the strategy
- communication in an organisation should be complete and timely, all the way to Board level
- there needs to be a change in the culture of accepting that large and complex IT projects will be delivered late and at increased cost
- the business case to support a project must be updated for significant changes as they occur
- major projects should have the best people involved from the outset
- a prototype of the IT solution should be developed and proven at an early stage
- at least one 'Health Check' should be performed during major high risk projects. Recommendations should be addressed on a timely basis
- internal service providers with specialist skills should be used from the start of a project and should be made accountable. They should decide if any external skills are required to support them
- Sydney Water needs to substantially improve its management of records.

PROJECT GOVERNANCE

Sydney Water had spent approximately \$61.0 million on R1, R2 and R3 up to project termination and another \$18.6 million on related CIBS hardware and software. We believe most of the \$61.0 million will be written off

Sydney Water advised us that:

- it had not determined an asset value for R1 and R2. We believe the majority of the \$61.0 million will be written off
- all CIBS hardware and software will be allocated to other applications at no further cost

Of the \$61.0 million, \$23.0 million was internal Sydney Water costs and \$38.0 million was paid to external parties. The largest external payment was \$29.4 million to PwC.

Management did not always report important issues to Sydney Water's Board of Directors in a clear, complete and timely manner

From the commencement of the project, procedures for reporting to the Board of Directors (Board) were deficient. In many cases the information presented was brief, unclear or incomplete. It did not provide a 'complete picture' of the project's status to the Board on a regular basis, which was necessary for decision-making and assessment of the project position.

This deficiency meant that the Board was not adequately informed of significant issues and risks during the project. This was particularly evident for the March 2002 Board meeting.

In September 2002 the Board was still supporting the delivery of a fully tested CIBS solution. The Chairman advised us that the first time she became aware that there was any significant doubt about the delivery of outcomes from CIBS was at a briefing in October 2002 from the Managing Director and the General Manager (GM), Customer Services. It was after that meeting that she recommended that the Board terminate the project.

At the Audit Committee meeting on 18 September 2002, we raised our concerns at the blow-out in CIBS costs, and further delays to implementation. We believe the Managing Director advised us that the project was on track, and that our concerns were, in effect, misguided. He contended that there were valid reasons for the increased costs, and it was expected that projects of such size and complexity would experience delays.

The Directors present accepted the Managing Director's view. It was unexpected, on our part, when the project was terminated about one month after that meeting.

Progress reports to the Board did not suggest significant doubts about the delivery of CIBS outcomes, although the CIBS Executive Steering Committee minutes show that the number of significant issues was increasing. The issues included:

- the increasing volume of change requests
- concern over CIBS' long-term technical viability
- technical readiness was in significant jeopardy
- pressures impacting on User Acceptance Testing.

Some of these issues, as well as cost concerns, were evident by March 2002, but appeared not to have been adequately reflected in the progress reports to the Board. The Managing Director advised us that he did comment on these issues to the Board.

At the end of April 2001, the Board made the Managing Director accountable for delivering the CIBS project, and he was required to provide progress reports to the Board on CIBS.

The Board requested bi-monthly reports detailing progress and costs that may be incurred against plan and budget. However, this reporting requirement was not adhered to, in that:

- from September 2001 to February 2002 no detailed progress reports were presented. In their place were brief updates contained within other Board papers
- the detailed progress reports that were submitted did not include complete information on project costs and projections against budget.

The Managing Director advised us that he believes reporting to the Board was appropriate at all times.

The GM-Customer Services and the Project Director reported to the Managing Director and assisted in the preparation of papers to be presented to the Board. There were over 45 meetings between one or both of these officers and the Managing Director from 21 January 2002 to 30 October 2002. It was the Managing Director however who had final say on what was to be presented to the Board, and led the discussion on CIBS.

In February 2002 a Project Director was hired by Sydney Water to assist PwC to 'land' the project. The Project Director reviewed the status of the project and prepared briefing notes for the Managing Director about two weeks after commencing, raising serious concerns about the ongoing viability of the project. These concerns included:

- 'uncertainty as to whether a satisfactory result could be achieved within a timeframe and total expenditure that would be acceptable to the Board'
- 'the current concerning situation is due to a lack of required expertise on both sides of the contract over a prolonged period. Consequently insufficient attention was paid to a number of important aspects critical to the success of a major business change initiatives such as CIBS'.

The Project Director also prepared cost projections that forecast costs between \$95.4 million and \$103.7 million. He also forecast a negative net present value (NPV). He advised the Managing Director, GM-Customer Services, and GM-Finance of these findings. Sydney Water advised us that the GM-Customer Services had discussions with the Managing Director about the benefits to be realised from the project. Each of these officers attended the March 2002 Board meeting.

The March 2002 CIBS progress report to the Board did note issues including additional funding would be required for 'additional functional enhancements', and for possible further extension of time. However, it appears that the more critical information was not discussed with the Board or documented in the progress reports in a way that would have rung alarm bells. The Managing Director advised us that he raised all relevant issues with the Board. Secretarial notes supporting the Minutes of the March 2002 Board meeting made reference to various project options, including that of terminating CIBS, but they do not give a context.

In view of the concerns raised by the Project Director of the forecast negative NPV and cost to complete the project, it is not clear why the GM-Finance; GM-Customer Services; and the Managing Director did not take action to further investigate these issues.

In June 2002, the Board requested more detailed reports from management outlining additional funds necessary to complete the project. The progress report stated 'At this stage we have yet to estimate the additional funds necessary to complete the project'. Similar comments were documented in the July, August and September progress reports. By end of September 2002, the forecast cost to complete the project totalled \$114.5 million. We were advised this estimate was presented to the Board in October 2002.

In August 2002, the Board noted that 'Significant critical activities associated with preparing the business for the new CIBS solution are well in hand, and in some areas a rehearsal of activities to cut-over to the new solution has already been undertaken'. The progress report expressed that cut-over to the new system was planned for March 2003 with the first quarterly bills in April 2003.

Although it appears Sydney Water project management had been aware since March 2002 that the project was in serious trouble, the overall reports to the Board do not seem to clearly communicate that concern. The minutes of the CIBS Executive Steering Committee in June 2002 state that the Managing Director pointed out '... it had been he who had seriously contemplated cancelling the project and ending the relationship with PwC on the basis that they had not and were not capable of delivering the result ...'.

The Board did not oversee the project as effectively as it might have. Its understanding of the project, in light of its complexity, was limited

The reporting by management to the Board on the status of CIBS was deficient. However, the Board's oversight was not as strong as it should have been. There are instances where the Board should have pressed management for more detailed information on the relevant issues including project costs and project management. In particular, the Board did not ask for a revised business case to be prepared, although it was obvious costs were increasing and benefits were decreasing during the course of the project.

We also note:

- the Board approved this large and complex IT project knowing that an IT architecture for the Sydney Water group was not in place. When the IT architecture framework was completed, Sydney Water IT then reviewed CIBS' compliance with this framework and it found that it failed 19 of the 20 requirements
- the Board did not ask the GM-Finance to review the project's business case and to take a proactive role over the project's financial issues
- that an external auditor was not engaged to review the performance of Sydney Water and PwC. During the approval stage of the project, the GM-Customer Services wrote a memorandum to the Chairman stating that in addition to the ongoing role of internal audit, it was intended that an external auditor would be engaged to review the performance of both Sydney Water and PwC. The project governance policy specified this requirement, but it is unclear why it was not followed
- the Board requested management to provide bi-monthly project updates to the Board. These reporting requirements were not adhered to, and many reports became less than detailed, and lacked pertinent information. The Board did not enforce management's responsibility to comply with these reporting requirements
- the DMR Report of February 2001, which was commissioned by the GM-Customer Services to serve as a 'Health Check', made significant recommendations to improve processes. Two of these were still outstanding in July 2002, some 17 months later. As well, the Internal Audit Contract Compliance Report of March 2002 had key project recommendations that were still overdue at the time the project was terminated
- in the March 2002 Board meeting, the Board resolved to approve the continuation of the CIBS project subject to a focus on delivering improved customer service and commercial outcomes through business process redesign, and tighter project control, accountability and reporting. The approval included increasing the budget to \$60.0 million. The minutes of the Board meeting do not record whether the Board asked management to support how these conditions of approval could be successfully achieved. More rigorous questioning of management at that time might have clarified that the project was in serious trouble at that stage. It was not until September 2002 that the Board requested information on current investigations, legal advice and the total budget required to implement the project
- through our attendance at the Audit Committee meetings, we are aware that the Committee's use of Internal Audit on CIBS was not as strong as we would have expected. We also noted a lack of rigorous questioning of management in regard to CIBS. This was most evident at the Audit Committee meeting of 18 September 2002, referred to in the previous finding
- the Chairman and Managing Director did not formally approve the \$7.4 million budget to cover the 'round one' commercial negotiations with PwC and further internal Sydney Water costs, as required by the Board meeting of March 2002, Board paper for the meeting in July 2002 and the presentation slide for the meeting in October 2002.

Sydney Water may not have proceeded with CIBS if it had done a timely analysis of the Technical Proof of Concept

The July 2000 Technical Proof of Concept (TPOC) was a key deliverable of the analysis phase of the project. At the end of this phase, Sydney Water had the option to terminate the contract with PwC at a total cost of \$966,000. Despite the significance of TPOC as a 'stop/go' point, Sydney Water did not critically examine the results of TPOC until December 2000. The principal contract was signed with PwC in June 2000.

PwC noted in its April 2001 Quality Assurance (QA) review of CIBS that 'The Technical Proof of Concept did not reflect the architecture which was chosen'. The collection of technologies selected to make up the CIBS solution appears to have been too complex and perhaps incompatible, in that:

- in version 0.4 of TPOC dated 14 July 2000, PwC stated some of the applications were never meant to be integrated and 'CIS Open Vision (main system) did not prove as trouble free as expected'. In version 1.0 of TPOC dated 24 July 2000 (signed off on 2 August 2000) the concerns were removed and it was concluded that TPOC was successful in integrating all technologies in question. We note these reports were still being negotiated one month after the main contract was finalised between Sydney Water and PwC
- in May 2001, the CIBS-Works and Assets Management System (WAMS) integration team from Sydney Water IT stated that it felt it was its responsibility to make the business aware of the costly constraints it was placing on the future enhancement of the CIBS-WAMS interface
- in July 2001 Sydney Water IT pointed out that due to the hybrid nature of the technical architecture the system would prove very costly to maintain and enhance.

Results from an Ernst & Young February 2001 review of TPOC, commissioned by Internal Audit in December 2000, were discussed at the Audit Committee. In that meeting, the Sydney Water Project Manager was quoted as stating 'that the TPOC was a limited scope exercise conducted by the contractor, PwC, as part of its own methodology'. In our view, the importance of TPOC was not fully appreciated by Sydney Water.

In June 2000, PwC invited the CIBS Executive Steering Committee to a demonstration of the CIBS prototype. This demonstration did not occur. PwC did not subsequently demonstrate the working model to the Committee. However, the project manager and GM-Customer Services told the Committee they were satisfied with TPOC.

Sydney Water did not effectively follow up and address recommendations from a 'Health Check' review

Two significant recommendations in the DMR Report of February 2001 (DMR Report) were still outstanding in December 2001, even though at the March 2001 Audit Committee it was requested that these be actioned and completed within three months.

More specifically, the DMR Report recommended:

- that Sydney Water use 'an experienced contract project manager to manage the day to day relationship with the contractor, PwC'. A replacement full time project manager was not brought in until February 2002
- 'the individual project schedules should be consolidated into one overall schedule that identifies all inter-project dependencies. The schedule should be updated regularly, preferably weekly, to enable the impact of changes to be identified promptly.' The project team was never satisfied that PwC always had a current master project plan throughout the life of the project.

Sydney Water did not adequately disclose the status of CIBS in its 2002 Annual Report

Sydney Water decided to make the following comments in its 2002 Annual Report:

- The main CIBS solution involving the core billing engine and interfaces is, at September 2002, due to be implemented during the second half of 2002-03
- Delivery of the main CIBS solution will be significantly later than originally planned and has incurred additional costs.

In an 'Out-Of-Session' meeting of the Audit Committee on 18 September 2002, we advised the Directors and management that we thought that the disclosure of CIBS in its draft 2002 Annual Report was inadequate. We believed that it did not detail risks, problems, and the reasons for cost increases and delays to the project. After some discussion, the Board's Chairman asked management to come back to us with a revised draft. This action was not minuted and management did not provide us with a new draft.

We asked for a copy of the printer's version of the Annual Report on 28 October 2002, and it was provided to us on the following day. We advised the GM-Corporate Affairs and Corporate Secretary, and GM-Finance that we believed the disclosure was inadequate.

We believe that the commentary on CIBS in the Annual Report did not adequately discharge Sydney Water's obligations for accountability. There was sufficient time, in our view, for more appropriate disclosure to be made, bearing in mind that Sydney Water had already made a public statement on 18 October 2002 that the project would not continue in its current form.

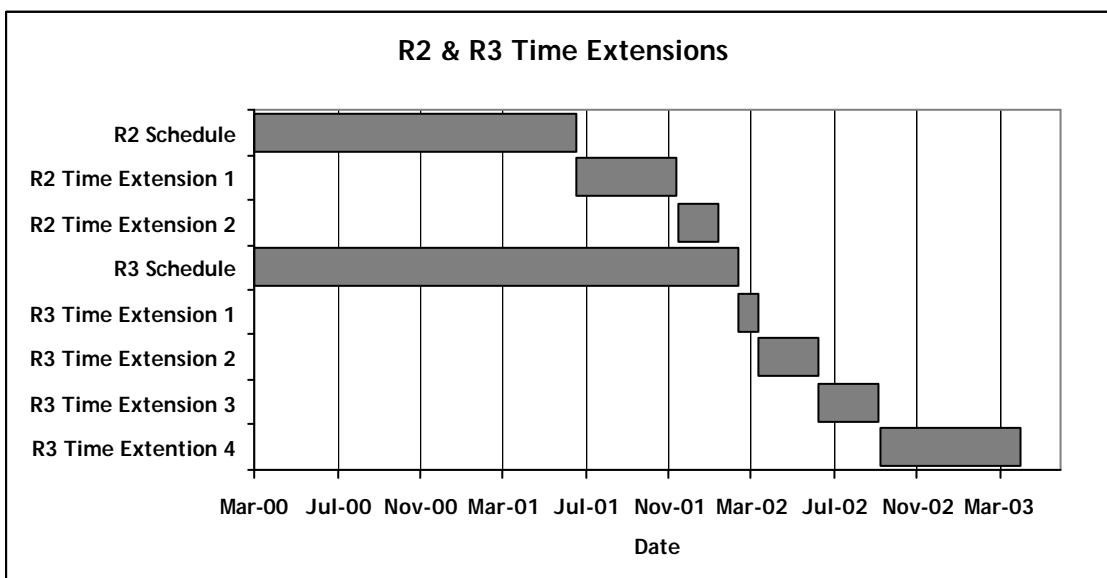
PROJECT SPECIFICATION; INTERFACE WITH USERS; AND PROJECT MANAGEMENT

Project planning and specifications were inadequate, contributing to many change requests and significant additional costs and delays.

The rate of scope changes and extent of issues identified during the course of the project led to new change requests (CRs) constantly emerging, through to the late stages of the project. This was a critical issue, and indicates that the project specifications were inadequate. As the project progressed, the CSD business needs were changing. This created significant differences between the agreed project specifications and those needs, resulting in CRs being raised to try to address the differences, including:

- electronic interface with customers for bill payments and delivery of infrastructure plans and diagrams
- ability for the call centre officers to view all the billing details on the computer screen
- calculating customer usage electronically based on historic information.

The extent of CRs contributed to the delays to implementation, as shown below:



The DMR Report noted that the CSD business strategies seemed to be well known amongst the CSD senior management, but were not documented and did not appear to be correctly communicated to the process owners, even though they had been communicated to the Project Manager. There was concern that the R3 CIBS functionality would not reflect CSD business strategies. The CSD business was undergoing change outside of the project, and the business expected this change to have been reflected in the new CIBS functionality.

The project was originally intended to produce a 'customer focus' solution. Although CSD business managers agreed to a 'customer focus' solution, and agreed to alter their business practices to meet this objective, many CRs from the business effectively resulted in a reversion to a 'property' functionality. Contributing factors to this situation included two changes of General Manager; a change in Sydney Water's project manager; and not having an officer controlling CRs who was suitably empowered early in the project.

Management commented that the term 'change request' was confusing, and covered multiple areas, including:

- extra features that Sydney Water wanted in addition to the original specifications, for example elements of R2 E-developer
- to comply with regulatory changes that occurred after the project commenced, such as the way rebates are given to customers
- to address inadequate specifications initially
- functions that Sydney Water did not originally consider necessary to specify (eg. bills not totalling correctly)
- some things not predicted, since it is almost inevitable to have some CR's in a project of this size
- advice sought from PwC by Sydney Water.

In general, CRs were being used as a tracking tool, and not all CRs were for technical changes.

The April 2001 QA review conducted by PwC included the observation 'analysis (phase) did not go into sufficient detail - this has led to Change Requests'. Furthermore:

- in February 2001, the DMR Report noted concerns over insufficient time having been spent in analysis. This may have contributed to functional requirements being missed
- in February 2002 the CIBS project director noted that the analysis phase was inadequate. He noted that detailed decision making and design of functionality was deferred to subsequent project phases, instead of getting early active user involvement and commitment
- the DMR Report also raised issues relating to the lack of certainty over data conversion. At that point in time, well into the project, the conversion approach was still unclear. It was also not clear how conversion would be tested or implemented.

It is unclear whether project management sufficiently considered the necessity and cost effectiveness of integrating the Trade Waste billing solution. This critically impacted the whole project, with the difficulty of delivering the Trade Waste component demanding a significant amount of PwC resources, resulting in other work falling behind.

DMR reported Sydney Water's concern with the lack of their input being allowed by PwC, and lack of confidence in the PwC planning process. DMR recommended PwC needed to improve their involvement of Sydney Water in the project planning process and be more timely with their production of plans. Sydney Water believed that PwC underestimated the complexity and cost of the CIBS project as it lacked a comprehensive understanding of Sydney Water and its working environment. Examples include:

- underestimation of the cost of WAMS/Hydra work when PwC transferred responsibility to Sydney Water IT
- underestimation of the complexities involved in including the Trade Waste component in the CIBS solution.

The collection of technologies selected to make up the CIBS solution appears to have been too complex and perhaps incompatible, in that:

- TPOC in July 2000 raised concerns in this regard. It states that some of the applications were never meant to be integrated, and that 'CIS Open Vision (main system) did not prove as trouble free as expected'
- in May 2001, the CIBS-WAMS integration team from Sydney Water IT felt that it was their responsibility to make the business aware of the costly constraints it was placing on the future enhancement of the CIBS-WAMS interface
- in July 2001 Sydney Water IT pointed out that due to the hybrid nature of the technical architecture, the system would prove very costly to maintain and enhance.

The process to identify all stakeholders who should have been involved in the project sign-off was unclear. After the implementation of R2 in November 2001, Sydney Water acknowledged that it had a fairly narrow view of stakeholders. As a result, it did not identify and engage, or it was late in engaging, many key stakeholder groups. The primary customer of R2 (a business manager in CSD) was not a signatory to many of the design agreements between PwC and Sydney Water.

The business case supporting CIBS was not updated for substantial changes in costs and benefits

The CIBS project does not appear to have been continually supported by a robust business case. Sydney Water also could not provide us with the version of the business case that was approved by the Board.

There is also insufficient evidence to support the selection of CIBS over other options. For example, the draft business case showed that the cost of upgrading the existing system was estimated at between \$9.0 million and \$14.0 million, compared to the CIBS option at a budgeted cost of \$38.2 million. Sydney Water could not show how much weighting was given to costs (as against benefits) in choosing the CIBS option.

The contingency cost on the project was originally set at 10 per cent. DMR noted that this was less than the industry norm of 30 per cent, and that much of this contingency was used up early in the project. DMR recommended that as a minimum, a 30 per cent contingency be applied to the budget, increasing it by \$12.0 million. In considering the recommendation, the Board 'noted' an amount of \$8.0 million, reflecting a 20 per cent contingency. The business case was not formally revised to take this into account in considering the choice of contingency options.

The original business case does not appear to have been formally revised and updated despite a number of prompts:

- in March 2001, the GM-Customer Services acknowledged the need to revisit the business case following the DMR findings

- in February 2002, the Sydney Water Project Director questioned whether a satisfactory result could be achieved within a timeframe and budget that would be acceptable to the Board
- in March 2002, Internal Audit recommended that the business case be formally revised.

This could be seen to reflect a belief by project management that costs were flexible, and that successful implementation of the solution was all that really mattered. For example:

- in February 2001 DMR noted that '... Releases 2 and 3 do not have separate budgets, thus implying that if funds are exhausted in Release 2, there will be insufficient funds for Release 3.' In response to this the CIBS project manager stated that 'Not having separate budgets for R2 and R3 should not imply that we may run out of money for R3 ... there is always the option of seeking additional contingency for additional variations'
- Sydney Water management accepted the recommendations by Internal Audit in March 2002 to re-assess the business case and agreed to address this by 30 September 2002. This was not done. The management response stated 'Management of the project are increasingly focused on realising the positive outcomes to be delivered by the project.'
- as well as costs increasing, the benefits of CIBS appear to have been reducing over the course of the project
- Accenture in its CIBS project review of October 2002, commissioned by the Board, noted that the benefits expected from CIBS were unclear. It also noted that because of the time taken by the project, some of the original productivity gains expected from the solution had already been delivered by the business as a result of redeploying a significant number of resources to CIBS
- towards the end of the project CSD had 90 people from its business working in various roles on CIBS. This required CSD management to adopt a number of strategies to maintain business services. These included hiring temporary staff, introducing business improvements, and outsourcing some functions. The degree of any staff reductions due to CIBS was less than the benefit documented in the business case.

The R3 benefits realisation review started in October 2001. After 29 revisions, it was still not signed off by stakeholders. There were some benefit areas that were different to the original business case, for example, e-commerce, changes of ownership, and closing of some offices.

Some Sydney Water people tended to the view that it was inevitable that within the public sector, IT projects of this size and complexity would go over budget and be delayed. We believe this was a contributing factor for the business case not being updated.

The project team lacked certain skills to do the job

Sydney Water's project team, and its composition, was deficient in certain areas, as follows:

- the DMR Report noted that there was a lack of IT experience within the Sydney Water project team. Project management lacked experience in large, fixed price IT contracts and relied on PwC project management for direction and leadership. In addition, there appeared to be a lack of adequate project support to overworked Sydney Water project managers
- when the project team was formed in 1999 the members had minimal IT experience and a lack of large, complex project management experience. There was also no 'high level' representation from legal and corporate finance throughout the project
- the DMR Report in February 2001 recommended that Sydney Water should consider the use of 'an experienced contract manager to manage the day to day relationship with the contractor, PwC'. The project manager was not 'replaced' until February 2002, even though doubts had also been expressed on her performance from various other quarters.

- the performance review of the Sydney Water project manager for 2001 included an assessment of not meeting expectations. This was because the project was running late and had many issues
- CSD business managers for R3 did not join the project team until late 2001 and mid-2002. From our discussions with CSD officers it was not clear that all officers were committed to the project. For example, there were 29 versions of the CIBS' 'Reaping the Benefits' paper and not all stakeholders were prepared to 'sign-off' their agreement with this document
- Internal Audit's Contract Compliance Report in March 2002 expressed concerns over the quality of Sydney Water staff, and whether they could comply with the terms of the contract specifying that they should be experts in certain areas
- it did not identify and engage, or it was late in engaging, many key stakeholder groups
- one of the committees providing oversight to the CIBS project was the CIBS Executive Steering Committee (Steering Committee). Its purpose was to monitor the conduct of the project and provide guidance to the project team, and facilitate resolution of any problems or issues that could impact the progress of the CIBS project.

The DMR Report noted that the Steering Committee did not operate as a normal Steering Committee would ie the approval, acceptance and project control process for budgets, resourcing, project schedule and deliverables was with the project sponsor as opposed to the Steering Committee. Rather, it was seen as a mechanism for communication of progress on the project and for removing project hurdles.

The following observations from the DMR Report highlight weaknesses which hindered the ability of the Steering Committee to function effectively:

- unclear Governance Charter and unclear relationship to Sydney Water's IT governance model
- reporting to the committee, including financial reporting, was inconsistent
- lack of agreement on the roles and responsibilities of the Steering Committee, shown in the lack of consistent reporting, the different level of issues put forward to it and the poor attendance
- financial reporting was inconsistent and there were requests made to improve the quality of the project cost information.

Observations on the PwC project team's skills are as follows:

- at the April 2001 CIBS Steering Committee meeting, Sydney Water IT expressed concern that the PwC project manager was 'young and inexperienced', and a request was made for his replacement. The experience and expertise of PwC was also questioned. The April 2001 QA review by PwC included comment that:
 - 'The PwC Release 3 team is inexperienced in systems integration and package implementation'
 - 'Project management team not working at the 'helicopter view', ie 'working at too low a level'.

PwC advised us that they addressed these issues. The incumbent PwC project manager left and additional staff were placed on the project. PwC said that the project manager resigned to pursue other career opportunities

- GM-Customer Services told us that the PwC Partner was unable to articulate to her what was being delivered to the CSD business. He took her question on notice but never replied

- PwC's project management of CIBS could have been improved in some respects, including:
 - there were gaps in the rigorous testing of the solution. Sydney Water engaged experts to assist its knowledge on understanding an appropriate testing strategy. This resulted in PwC agreeing to combine its testing team with Sydney Water's in an endeavour to produce a quality solution
 - during the planning of the project in 2000, PwC did not seek sufficient input from Sydney Water
 - Sydney Water was dissatisfied with PwC's overall project plan and kept asking for improvements
 - gaining a better understanding of Sydney Water's culture.
-

Sydney Water recognised that it needed a business improvement process, but during the project it reverted to only implementing a computer system

When Sydney Water committed to the CIBS project, CSD business managers agreed that they would change their processes so that the benefits of a 'package solution' would be obtained.

The project was originally conceived to produce a 'customer focus' solution. CSD business managers agreed to this, and agreed to change their business practices to meet this objective. However, many of the CRs from the business had the effect of making the solution revert to a 'property' functionality.

We believe that with the changes in occupants of the positions of GM-Customer Services and that of project manager, the business managers for R3 delayed their involvement until late 2001 and mid-2002. From our discussions with CSD officers, it was not clear that all officers were committed to the project. Hence their 'reluctant' involvement.

There was poor communication between the project team and the Customer Services Division. This greatly weakened the project

The February 2001 DMR Report found that CIBS project tracking and reporting lacked rigour. It concluded:

- that the status reporting to CIBS management had been informal; it had not been produced regularly or frequently, and was not produced to a standard format
- there was no structured internal communications plan and most CIBS project team members were unclear on the status of the project outside of their immediate view
- communication difficulties were experienced between PwC and Sydney Water.

By May 2002, communication difficulties were still evident. A PwC QA Review completed in May 2002 noted that the project structure at that stage did not effectively support cross-team communications, leading to a lack of clarity around certain roles and responsibilities of team members and leadership; lack of clarity on overall priorities; lack of adequate process to communicate changes across the teams; and team members discovering extensions to their assignments via other sources rather than through project communication. Some team leaders commented on the lack of downward communication and lack of visibility of minutes of both the CIBS Operational Steering Committee and the CIBS Executive Steering Committee meetings.

The breakdown in communication between all parties became more pronounced over time.

Some people in Sydney Water believed that the CIBS project operated in isolation from the CSD business. DMR reported this had occurred 'in the past'. It also noted that the CSD business strategies seemed to be well known amongst the CSD senior management, but were not documented and did not appear to be correctly communicated to the process owners even though they had been communicated to the CIBS Project Manager through membership of the CSD leadership team. There was concern that the R3 CIBS functionality would not reflect CSD business strategies. The CSD business was undergoing change outside of the project and the business expected the changes to have been reflected in the new CIBS functionality. This disconnection between the project and CSD, interactively and geographically, was detrimental to the project.

DMR did state however that the project and business generally worked well with each other.

The project was approved without a corporate information technology strategy. Once Sydney Water developed this strategy, it was found that the CIBS computer architecture was not compatible

When the Board approved the project in February 2000, it did so without a Sydney Water Group IT architecture framework in place. When the IT architecture framework was completed, Sydney Water IT then reviewed CIBS' compliance with this framework and it found that it failed 19 of 20 requirements. This was also referred to earlier under the finding dealing with the Technical Proof of Concept.

In February 2001, the DMR Report noted that there was an on-going conflict between Sydney Water IT and PwC over the level of completeness of the CIBS architecture specification. Sydney Water IT was unable to provide timely information to PwC due to technical architectural standards being incomplete, and concerns over probity due to a major tender being in process.

An integrated project plan was not maintained during the project

Sydney Water project management was never satisfied that an integrated project plan was implemented and maintained by PwC.

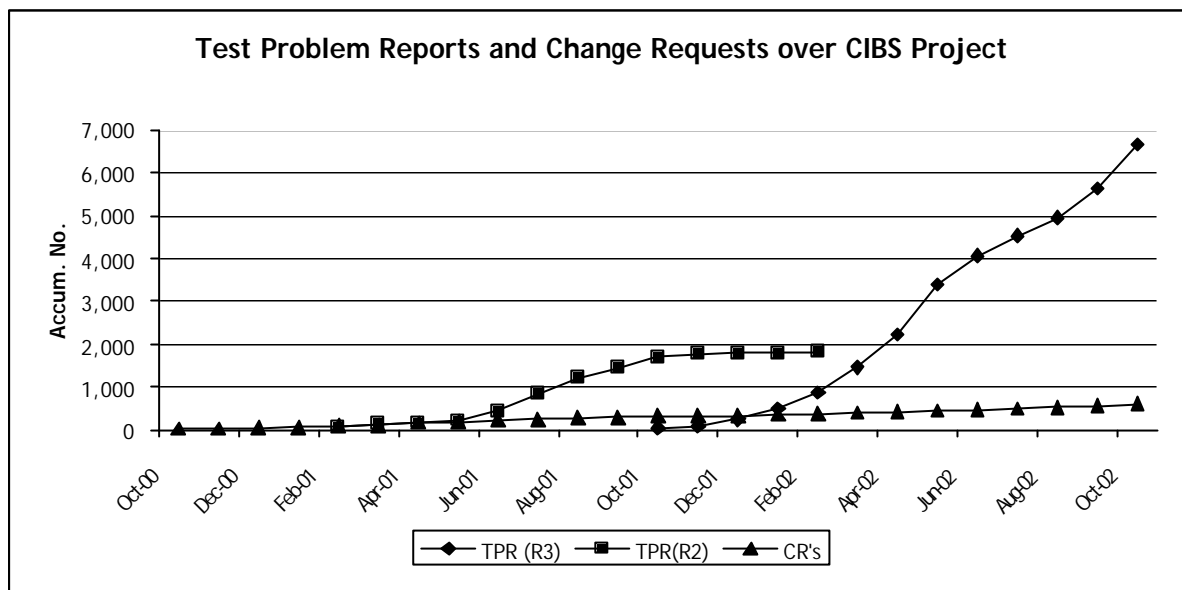
The DMR Report of February 2001 noted that the CIBS project plan was not adequately integrated at the commencement of the project. The integration needs of Sydney Water should have been established at the start of the project. Subsequently, the individual project schedules should have been consolidated into one schedule that identified all inter-project dependencies, in order to avoid time delays due to project dependencies not being suitably allowed for.

In April 2002, the Project Director noted at the CIBS Executive Steering Committee that 'the biggest risk to the project is not having an integrated plan with linked dependencies, to clearly identify the critical path and the impact of each specific delay'.

Testing was neither timely nor comprehensive

Testing of the solution took longer than expected. The number of errors and software coding changes were significant. The anticipated time to correct the errors and have them to an acceptable level was projected to be well beyond the March 2003 'go live'. The approach also had 'gaps' in testing that were not addressed until September 2002.

Testing was producing large numbers of errors (unanticipated results) that required Test Problem Reports (TPRs) to be raised. This is shown below:



The TPRs required PwC to effect coding changes to the solution for interface issues, and STS for prime solution modifications.

Sydney Water was so concerned with testing results and PwC's testing strategies that it commissioned a number of reviews, including Accenture Australia Ltd (Accenture), Knowhow Consulting Pty Ltd, and Sunfest Holdings Pty Ltd. 'Gaps' in testing were found with system integration testing, user documentation and functionality on converted data.

In response PwC agreed to merge its resources with Sydney Water's, and to oversee the new teams. This arrangement occurred in September 2002.

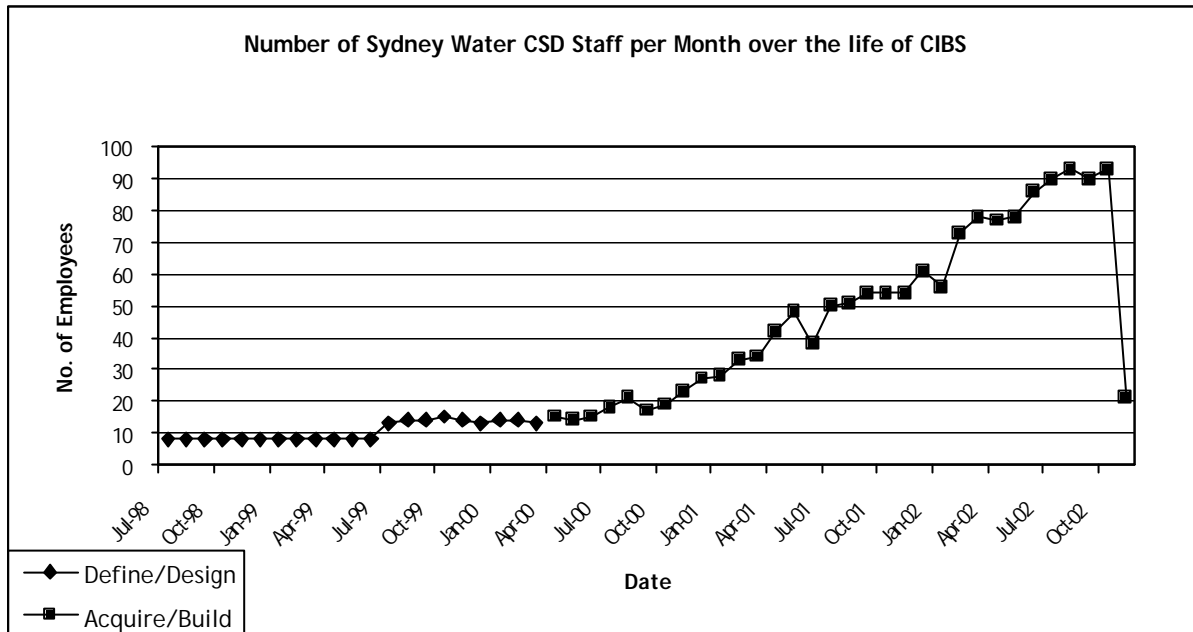
PwC projected that at 'go-live' in March 2003 there were still going to be approximately 50 category 1 and 2 significant errors even though there should not have been any. One contributing factor to the slow correction of errors was that a proportion of requests had to be sent to STS in the UK. Modifications were generally arranged to occur in accordance with STS's system upgrade methodology for all its clients, ie changes were not immediate.

In February 2001 DMR raised issues relating to the lack of certainty over data conversion. At that point in time, well into the project, the conversion approach was still unclear. It was also not clear how conversion would be tested or implemented.

There was a belief in Sydney Water that IT projects of this nature and complexity would inevitably go over budget and be delayed

In discussion with some people in Sydney Water, we gained a strong impression that there was a belief that IT projects of this nature and complexity would inevitably go over budget and be delayed. The problem with such a mindset is that the Board and project management could become complacent about issues.

Towards the end of the project, CSD had 90 people from its business working in various roles on CIBS. This required CSD management to adopt a number of strategies to maintain business services. These included hiring temporary staff, introducing business improvements and outsourcing some functions. The table below shows the increase in the number of CSD staff working on the project from the define and design phase through acquiring and building the solution:



We note however that DMR reported that Sydney Water performed an extensive evaluation and selection program and concluded 'Sydney Water should be congratulated on the methodology of the selection process'.

Contract administration was deficient. One variation to the contract transferred significant responsibilities and risks from PwC back to Sydney Water

Sydney Water's original project manager was neither an experienced contract project manager nor an IT expert. The DMR Report in February 2001 recommended that:

- Sydney Water should consider the use of an experienced contract manager
- there was an impression in the business that Sydney Water was not taking a sufficiently hard stand with PwC on issues of scope. This increased the risk of items that were really 'in scope' being treated as 'change requests' and incurring additional costs.

The project manager was not replaced until the new permanent GM-Customer Services recommended this course of action in January 2002. A Project Director was appointed in February 2002 and gradually assumed the entire project manager duties over the next three months.

Further indicators of unsatisfactory contract administration include:

- the project team did not understand the significance of the contract clauses on testing. It was only after Internal Audit advised the project team of clauses 17.1 and 17.2 that Sydney Water started to hold PwC accountable for delivering a 'tested' solution
- PwC was continually allowed to report in a manner that was not clear and concise, including the lack of an Executive Summary, highlighting key problems, within a large report (up to 50 pages). We also believe PwC should have always reported costs incurred; financial and timing impact of new change requests; and time taken to correct coding errors found during testing
- variation #1 of the PwC contract included \$695,000 of costs incurred by PwC. Sydney Water agreed to pay 50 per cent of those costs. It is not clear why Sydney Water agreed to pay that amount
- the project manager approved variation # 8 of the PwC contract for \$2.8 million on 24 September 2002 without delegation. The variation was sent to the Board in March 2002 and authority was delegated to the Chairman and Managing Director. However the Officers did not sign a formal approval before the contract with PwC was terminated.

The contract originally required PwC to design and develop the enhancements and interfaces to WAMS (the computer system used to record infrastructure maintenance details) and HYDRA (the geographic computer system recording details of pipes). However, it was subsequently decided that Sydney Water IT should take over these tasks. The contract value was amended for this work being performed by Sydney Water IT, but the variation transferred significant risks from PwC back to Sydney Water. It is not clear if the reduction in contract value was worth the additional risk.

The contract with PwC was weaker than the request for tender in some important areas

We did not receive documents detailing contract negotiations between Sydney Water and PwC. In the absence of those documents, we compared the draft contract in the tender specifications to the final contract. Some contract terms were less favourable than those originally in the tender. They reduced PwC's responsibility and/or potential liability, for example:

- the original warranty period was reduced by at least 25 per cent

- the contract did not include a requirement for the contractor to reimburse costs incurred by Sydney Water where the contractor failed to correct a breach of warranty that was not deemed material under the contract
- the request for tender required PwC to 'perform implementation works expeditiously in accordance with the contract and without delay ... failure will be considered as a substantial breach of the contract'. In the final contract this requirement became PwC 'shall undertake the system implementation works in a competent, proper, efficient and timely manner in accordance with the Master Project plan and Specification'
- the clause in the request for tender relating to a conditions precedent for payment has not been included in the contract
- the request for tender contained specific clauses relating to the recovery of sums paid to the contractor, however, these do not appear in the contract.

COST ESTIMATION

The final project estimate for CIBS was \$135.1 million, compared to the original budget of \$38.2 million

Several factors contributed to the significant under estimation of project costs, including:

- the Customer Services Division (CSD) not defining system requirements correctly
- CSD business processes changing during the life of the project
- CSD moving the solution from a tenant system to a property based system
- Sydney Water's budget and costing processes being ineffective and PwC's inadequate planning and estimation of costs.

At the time of terminating CIBS, Sydney Water's final project estimate was in the order of \$114.5 million. We believe this was understated by \$20.6 million and should have been \$135.1 million. The \$20.6 million is a total of \$13.5 million for Sydney Water IT costs incurred, \$2.0 million for Sydney Water IT costs still to be incurred and \$5.1 million for overheads not charged to the project.

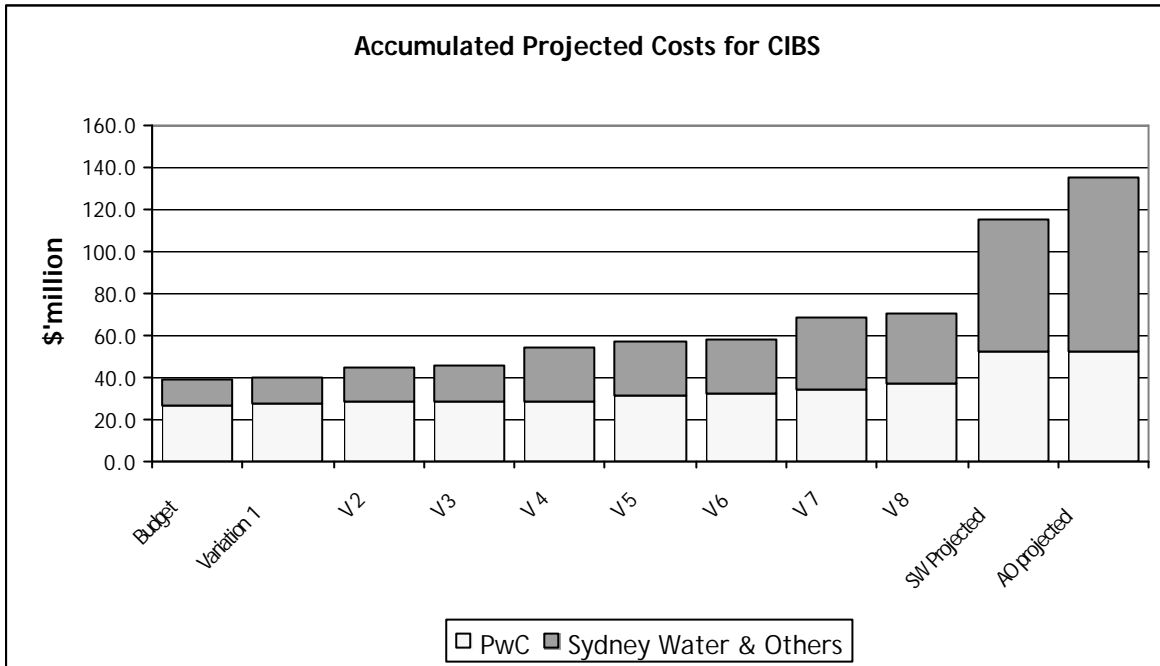
Reasons for the variance between \$135.1 million and the original budget of \$38.2 million include:

- \$14.9 million of costs not recorded, as identified by Sydney Water (\$4.3 million of financing costs; \$5.9 million of labour costs; and project costs incurred during the 'breakthrough' program, \$4.7 million)
- \$18.6 million of costs not recorded to the project, as identified by us (\$13.5 million for Sydney Water IT; and \$5.1 million for overheads not charged to the project).

Sydney Water used a rate of \$45 per hour to charge labour to the project. However, the actual rate is around \$90 per hour. CSD management advised us that the lower rate was used because of budget pressures, and that the rate was discussed with Corporate Finance

- additional \$25.8 million to PwC
- \$12.0 million for post 'go live' costs to upgrade CIBS functionality.

The contract with PwC was varied eight times over the life of the project. In that time, the project team went to the Board on three occasions to seek further funding. The increase in project estimates, split between PwC and Sydney Water, is shown below:



Significant contingencies, as well as hardware and some software costs were not in the original budget

The approved project included a 10 per cent contingency factor rather than the industry standard of 30 per cent. When DMR Consulting advised Sydney Water of this, the Project team asked the Board to approve a change to a 20 percent contingency, worth \$8.0 million. The Board 'noted' this request.

We were advised that CIBS project management had a 25 per cent contingency in the original project estimate. This was then reduced by CSD to 10 per cent. It is unclear why it was lowered but it has been suggested to us that CSD had lowered the contingency because the project's NPV would have only just been positive by using the 25 per cent. We have not confirmed this view.

The CIBS budget did not include an estimate for hardware and software costs fairly attributable to the project. CIBS project management removed from the tender the requirement for the successful tenderer to provide computer hardware and software costs. This task was instead given to Sydney Water IT as it was within a Sydney Water project initiative.

RISK MANAGEMENT

Risk management was not effective at the corporate and project levels

We noted the following deficiencies in risk management:

Customer Services Division

There were no written plans to mitigate the risk of a CIBS failure at the Divisional level. There was also an inconsistent measurement of this risk compared to the corporate level. The CSD risk matrix had the likelihood of a CIBS failure as a 'possible' with a 'severe' impact in July 2001, February 2002 and July 2002. At the corporate level the risk was a 'possible' likelihood and 'severe' impact in July 2001, but this was upgraded to 'likely' and 'severe' in July 2002.

Periodic reassessment of risk management is a requirement of the AS/NZS 4360: 1999 (Standards Australia - Risk Management), which Sydney Water is striving to meet. There is no evidence to show that risk management output for CIBS (eg risk matrices at project and Divisional levels) in Sydney Water is sufficiently maintained, up to-date, and consistent.

Project Level

Risk management was not consistently applied through the life of the CIBS project. The identification of new project risks, and the monitoring of actions on known risks, was not occurring from September 2001 to April 2002. Risks, issues and actions were recorded and monitored by the project director after that date with the assistance of Internal Audit, until the termination of the project.

PwC representatives delivered a presentation to Sydney Water on the 12 most common risks in relation to the implementation of IT projects, and proven strategies for minimising these risks. This presentation was part of a Value Management Study Report prepared by Sydney Water in June 1998. A number of these risk areas ultimately contributed to the project's failure, as Sydney Water did not implement effective strategies to minimise them.

Corporate Level

Sydney Water stated in its September 2002 Draft Statement of Corporate Intent (SCI) for 2002-03, that all key risks and major emerging contingent liabilities that could impact that year's financial results were disclosed. However, the potential failure of CIBS, delays in the project, and increased costs were not mentioned.

At the time of printing of this Report, Sydney Water has not written to its shareholders advising them that it wished to alter the draft SCI, even though the project was terminated, and approximately \$55 million is expected to be written-off. The forecast profit before tax and capital contributions in the draft SCI is \$182.0 million for 2002-03.

Internal Audit reviewed the corporate risk program and reported on 6 August 2002. These findings included:

- no documented process for determining a priority listing of what business units/functions were to be included in the Corporate Risk Management program
- lack of clarity as to the extent to which risk management processes extend beyond a divisional level
- divisional risk coordinators are not sufficiently accountable for meeting the requirements of the Corporate Risk Management program of their Division.

At the March 2003 Audit Committee, Internal Audit also noted that the GM-Finance was not reporting performance against Key Performance Indicators for risk management, and was therefore limiting accountability.

The culture of Sydney Water suggests a belief that the outsourcing of major projects will effectively transfer all risks to the contractor

In interviews with Sydney Water people, we gained the impression that some believed that outsourcing the construction and project management of CIBS to an internationally well-regarded firm resulted in minimum risk for Sydney Water.

Prior to the Board approving CIBS, the Chairman obtained additional information from management on how it intended to contain the costs and risks of the project. The GM-Customer Services advised that as the PwC price was 'a capped amount', and through Sydney Water paying a premium, the fixed price contract would provide strong protection for Sydney Water at a reasonable price. This did not occur.

The Audit Committee and other Sydney Water management in interviews also displayed similar sentiments, ie that Sydney Water had outsourced its risk. Symptoms of this culture were that Sydney Water gave a low priority to updating its risk management processes, and did not pursue DMR recommendations relating to risks with the vigour that was necessary.

OTHER

The introduction of CIBS Release 2, albeit with less functionality, is a positive outcome from the project

CIBS Release 2 (R2) was rolled out over four phases, commencing in November 2001 and finishing in January 2002. Although the agreed functionality was not fully delivered, a program of rolling 'fixes' has been agreed. In December 2002, a sub-committee of the Board approved funding of \$702,000 to meet the top 15 of 72 further modifications required for R2.

Our review of CIBS was restricted in some areas because Sydney Water was unable to provide us with relevant documentation. A poor records management system exists in relation to CIBS

Records Management

Sydney Water should rectify some other matters, particularly its records management. These matters impacted on our work in relation to CIBS, as we were unable to obtain some relevant documentation, including:

- final business case
- tendering processes
- net present value calculations for the project.

Also, there are many documents being held by Sydney Water and its legal advisors under legal professional privilege that we have not reviewed. We believe we could have obtained them but chose not to in light of potential litigation.

CHRONOLOGY OF EVENTS FOR CIBS

Date	Details
May-97	Breakthrough Program announced and Mr John Parker appointed as CIBS project sponsor
30-Jun-97	Directors of the Board: <ul style="list-style-type: none"> ▪ Mr John McMurtrie (Chairman) and Mr Paul Broad (Managing Director) ▪ Mr John Colvin, Ms Belinda Hutchinson and Dr Judy Messer ▪ Mr Peter Sams and Mr Penton Sutcliffe
28-Sep-97	Mr Paul Broad resigns
29-Sep-97	Mr Christopher Pollet appointed as Acting Managing Director of Sydney Water
Oct-97	Business case approved for Define Phase
Dec-97	Ms Karen Waldman appointed as Acting GM -Utilities replacing Christopher Pollet
21-Nov-97	<ul style="list-style-type: none"> ▪ Mr John McMurtrie, Mr John Colvin, Ms Belinda Hutchinson and Dr Judy Messer retire ▪ Mr David Hill (Chairman), Mrs Gabrielle Kibble, Dr Kerry Schott and Prof John Whitehouse appointed as Directors of Sydney Water
Feb-98	Mr Ron Quill appointed as new GM -Utilities replacing Ms Karen Waldman
1-Feb-98	Dr Judy Messer re-appointed as Director of Sydney Water
Feb-98	Business case prepared for Expression of Interest (EOI) for new Information System
Mar-98	Approval to issue EOI
Apr-98	EOI issued via print and electronic media. 194 copies taken from internet site
May-98	EOI closed - 27 responses received and evaluation commenced. Mr Geoff Morris appointed as new GM -Utilities replacing Mr Ron Quill. He also became the new project sponsor
Jun-98	Value Management Study performed concluded the preferred IT option and 'cost effective' solution was total replacement of the information system
10-Jun-98	Mr Peter Sams resigns
Jul-98	EOI report submitted to GM -Retail for approval Water contamination incident began
Aug-98	No decision on EOI (delayed due to water contamination incident)
19-Aug-98	<ul style="list-style-type: none"> ▪ Mr Christopher Pollet resigned as Managing Director ▪ Mr Warren Hart appointed as Acting Managing Director of Sydney Water
20-Aug -98	Mr David Hill resigns
1-Sep-98	<ul style="list-style-type: none"> ▪ Mrs Gabrielle Kibble appointed as Chairman of Sydney Water ▪ Mr Michael Costa appointed as Director of Sydney Water
Sep-98	Preparation of business case to proceed to tender
21-Sep-98	Prof Peter Baume and Mr John Priest appointed as Directors of Sydney Water
Oct-98	<ul style="list-style-type: none"> ▪ Mr Dennis Furini appointed as new GM -Retail (Utilities Division now known as the Retail Division) and Project Sponsor replacing Mr Geoff Morris ▪ Review of CIBS by Retail Executive - endorsement to proceed ▪ EOI recommendation approved by Mr Warren Hart and vendors advised of result
16-Nov-98	<ul style="list-style-type: none"> ▪ Mr Warren Hart resigns as Acting Managing Director ▪ Mr Alex Walker appointed as Managing Director of Sydney Water
Dec-98	The Value Management Study recommended solution supported by Retail Executive and approved by Mr Alex Walker (08/12/98) and proceed to tender
Feb-99	Completion of business requirements and tender prepared and reviewed
26-Feb-99	Approval to issue tender to 6 pre-qualified organisations (consortiums) by Mr Dennis Furini
4-Mar-99	Prof John Whitehouse resigns

5-Mar-99	Mr Gary McCully appointed as Director of Sydney Water
5-Mar-99	Request for Tenders issued to the 6 pre-qualified consortiums
15-Apr-99	Tender closed - 5 responses received
Apr-99	Mr Peter Mayhook appointed as GM -Retail and project sponsor replacing Mr Dennis Furini. (Retail Division later became known as the Customer Services Division)
Jul-99	Tender evaluation interim Report prepared and endorsed recommending final short-listing of PricewaterhouseCoopers (PwC) and MITS Ltd tender offers for detailed review
Aug-99	Tender Gap Analysis phase of the evaluation for PwC and MITS Ltd
17-Nov-99	Business case presented to Board gave status and progress of the CIBS project for consideration by the Board. Recommendations made and agreed by Board for further investigation and to re-submit in December
Dec-99	Tender Evaluation Committee recommended awarding the tender to PwC, endorsed by both the Contracts and Consultancy Committee (2/12/99) and the Sydney Water Executive (3/12/99)
15-Dec-99	Business case presented to the Board seeking approval to award the contract and funding for acquisition phase. Board requested further analysis regarding joint venture with Integral Energy for resubmission to Board in February 2000
16-Feb-00	Business case resubmitted following joint venture review. Board approved awarding contract to PwC and total funding of \$38.2 million. This total sum includes \$26.3 million for PwC, and the remaining \$11.9 million for Sydney Water costs subject to review of the CIBS proposal to the satisfaction of an external adviser and subsequent consideration of the review by Mrs Gabrielle Kibble and Mr Michael Costa
23-Feb-00	A favourable report by external adviser received
24-Feb-00	Memo from Mr Alex Walker to Mrs Gabrielle Kibble requesting sign off on the project after the external review had been completed
28-Feb-00	Mrs Gabrielle Kibble met with Mr Alex Walker, Mr Peter Mayhook and the Sydney Water project manager raising issues on the need for a clear statement about all the existing systems, their functionality and age, how they are being replaced, the ability to contain the costs and risk of the project and the ability of the system to meet Sydney Water needs
1-Mar-00	<ul style="list-style-type: none"> ▪ Memo from Mr Peter Mayhook to Mrs Gabrielle Kibble regarding additional information on CIBS ▪ File note prepared by Mrs Gabrielle Kibble indicating that after receiving further information was now willing to sign off on the project
6 Mar-00	Contract for the Analysis Phase includes Technical Proof-of-Concept (TPOC) as a key deliverable. As part of the TPOC, PwC was required to 'develop a technology prototype to test integration of software products'
27-Mar-00	Official start date of the project
14-Apr-00	Governance Model established. The CIBS Executive Steering Committee included: <ul style="list-style-type: none"> ▪ Mr Peter Mayhook as Project Sponsor ▪ Ms Judi Hansen (GM -Strategy and Change) - attended some meetings ▪ Mr Paul Freeman (GM -Distribution) - attended some meetings ▪ Sydney Water project manager and PwC project manager
June 2000	PwC demonstration of TPOC prototype for CIBS Executive Steering Committee does not occur
21-Jun-00	Final Contract signed
Jul-00	<ul style="list-style-type: none"> ▪ Sydney Water IT formed (as a result of the reintegration of the Information and Communication Systems (ICS) division from Australian Water Technologies Pty Ltd) ▪ Planning for R2 Design Phase - PwC presented their plan for the Design Phase ▪ Weaknesses in CIBS security identified.
14-Jul-00	TPOC finalised (after the final contract had been signed). The TPOC identifies some issues, which could be potential 'show-stoppers'
18-Jul-00	CIBS Executive Steering Committee action plan to have Sydney Water Internal Audit made primary auditor

7-Aug-00	Sydney Water IT reviewed 1 st PwC architecture document and provided feedback to PwC
9-Aug-00	Sydney Water chronology stated a meeting initiated as Trade Waste was having difficulty in identifying business requirements and late in signing off specifications. Ongoing issues and meetings held on a regular basis
10-Aug-00	The "Analysis and Beyond" report, prepared by PwC, was presented to Alex Walker. This report was the CIBS Analysis Phase final deliverable
25-Aug-00	Sydney Water IT reviewed 2 nd PwC architecture document and provided feedback to PwC
1-Sep-00	<ul style="list-style-type: none"> ▪ Formal closure of Analysis Phase and start of Design Phase. Sydney Water noted PwC had not addressed Trade Waste and change of ownership, and held back milestone payment ▪ Internal Audit first identified a number of important issues and risks in July 2000. Management responses to these issues were received by mid to late August, and included in the attachment to the memo dated 1 September 2000.
Sept-00	First release of R1 including Analysis, Design and configuration of R1 (planned finish date August 2000)
6-Oct-00	Sydney Water IT and PwC met Peter Mayhook to discuss architecture review findings
11-Oct-00	Sydney Water IT published architecture review document and reported on CIBS architecture stating there were 19 of 20 compliance failures
16-Oct-00	<p>Issues raised at CIBS Executive Steering Committee:</p> <ul style="list-style-type: none"> ▪ Sydney Water project manager gave an overview of additional modifications, enhancements and interfaces that were agreed at the end of Analysis Phase and documented in Schedule 5 and Analysis Definition document. Total variation to be agreed \$1.3 million ▪ Internal Audit presented an audit report raising several issues/risks on the project
27-Oct-00	Contract variation of \$1.3 million resulting from the Analysis Phase (shift from Sydney Water's internal cost to PwC cost, therefore no change to budget total) approved by Mr Peter Mayhook
30-Nov-00	Transition architecture agreed with PwC
6-Dec-00	R2 design phase completed, e-developer design sign off (planned finish date Oct 2000)
18-Dec-00	Request for approval to award CIBS "Health Check" contract to DMR Consulting which was initiated by Mr Peter Mayhook and Internal Audit
22-Dec-00	Ernst and Young's (E&Y) report on the TPOC review highlighted issues. Project management did not adequately address these matters
Jan-01	Sydney Water IT agreed to do the design and construction of WAMS Enhancements necessary for CIBS R2 (signed April 2001)
Feb-01	<ul style="list-style-type: none"> ▪ DMR Review outcomes incorporated into revised architecture review document ▪ Sydney Water completes first of a series of reviews of PwC code for R2 and provides report for action to PwC
12-Feb-01	CIBS Executive Steering Committee concerned that proposed approach to implementing the business model on Urban Development was moving away from the model agreed with CIBS
19-Feb-01	DMR Consulting CIBS Project Health Check Report issued
21-Feb-01	<ul style="list-style-type: none"> ▪ Internal Audit memo to Mr Peter Mayhook with the TPOC review attached. The information provided to Mr Peter Mayhook points to serious issues with respect to the project including weaknesses in general project control ▪ E&Y's findings regarding TPOC review reported to the Audit Committee. The response by the Sydney Water project manager did not appear to adequately convey the seriousness of the E&Y findings ▪ Capital Expenditure Program Progress Report to the Board noted: <ul style="list-style-type: none"> ▫ analysis phase has been finalised with an agreed scope between Sydney Water and PwC. Following this, the required contractual documentation has been updated

Mar-01	<ul style="list-style-type: none"> ▪ Architecture Review Working Group formed to progress resolution of some of the outstanding architecture issues ▪ GM-Customer Services acknowledges the need to revisit the business case post DMR findings
6-Mar-01	Memo from Mr Peter Mayhook to Mr Alex Walker acknowledged the need to employ an experienced project manager per DMR's recommendations
27-Mar-01	Mr Peter Mayhook presentation to Audit Committee after DMR Health Check Final Report. Audit Committee requires all major DMR findings to be implemented within three months
Apr-01	<ul style="list-style-type: none"> ▪ Mr Peter Mayhook resigned and Mr Steve Baxter appointed as Acting GM -Customer Services ▪ Architecture Review Working Group reconvened ▪ R2 implementation date rescheduled from August to November 2001 - due to specific technical issues and phased rollout to all sites by January 2002 ▪ Board makes Mr Alex Walker directly accountable for CIBS
5-Apr-01	Dr Kerry Schott resigns
11-Apr-01	<ul style="list-style-type: none"> ▪ Progress Report to the Board noted: <ul style="list-style-type: none"> ▫ number of achievements and milestones achieved including R1 implementation, analysis phase has been implemented with all agreed deliverables produced on schedule ▫ DMR Report concluding that they saw 'no reason to believe that the CIBS project should fail'. Whilst that report detailed a large number of areas of improvement. All the recommendations have been actioned or completed. ▫ options to terminate the project immediately or at end of e-developer (R2) ▫ Board noted that the Audit Committee considered the DMR Report on CIBS at last Audit Committee meeting. ▪ Board resolved to: <ul style="list-style-type: none"> ▫ approve contract variation of \$4.8 million approved by the Board for full capitalisation of additional Sydney Water labour costs and 'noted' additional capital funding of \$8.0m for 20% contingency on the CIBS budget ▫ request management to provide a two monthly project update to the Board detailing progress and costs that may be incurred against plan and budget
23-Apr-01	<ul style="list-style-type: none"> ▪ Composition, roles and responsibilities of Steering Committee were revised. Mr Alex Walker became the new Chairman and Project Client, Mr Steve Baxter and the Sydney Water IT became members of Steering Committee ▪ Issues raised at the CIBS Executive Steering Committee: <ul style="list-style-type: none"> ▫ performance of the architecture risks ▫ PwC project manager's expertise questioned and request that he be replaced ▫ DMR engaged to assist Sydney Water Project Manager to manage aspects of the project
24-April-01	PwC Quality Assurance (QA) Review Report completed on the project includes comments on PwC's performance
May-01	<ul style="list-style-type: none"> ▪ PwC project manager replaced ▪ R2 construction phase completed (planned finish date moved from Oct 2000 to May 2000) ▪ Sydney Water IT WAMS team informs CSD that future enhancement of CIBS-WAMS interface would be costly
Jun-01	<ul style="list-style-type: none"> ▪ Sydney Water IT deliver CIBS R2 WAMS for PwC testing ▪ Sydney Water IT agree to do the (re-) analysis, design and construction of WAMS Enhancements necessary for CIBS for R3 ▪ Initial meeting of residential group business managers regarding design issues

13-Jun-01	<p>Issues raised at the CIBS Executive Steering Committee:</p> <ul style="list-style-type: none"> ▪ focus placed on CRs that were agreed as 'business critical' ▪ stakeholder/Business perception that benefits were not going to be delivered. Business had issues/concerns that deliverables that were seen as 'selling points' may not be initially delivered and may lead to more work at the business level ▪ project at risk due to R2 construction problems and potential impact of scope changes for R3 on both time and cost
20-Jun-01	<p>Progress Report to the Board noted:</p> <ul style="list-style-type: none"> ▪ all DMR recommendations have been actioned or completed and being monitored by DMR and Internal Audit ▪ R2 into construction phase, which continues to have problems with testing, posing a threat to time delivery
30-Jun-01	Mr Penton Sutcliffe and Mr Michael Costa resign
Jul-01	<ul style="list-style-type: none"> ▪ Sydney Water IT conduct review of CIBS R3 WAMS enhancement function specification. It also states that due to the hybrid nature of the technical architecture CIBS would be costly to enhance and maintain ▪ Architecture review group met and discussed the lack of progress on some of the architecture actions ▪ CSD and Corporate both record risk assessment of a CIBS failure as 'possible' with a 'severe' impact
10-Jul-01	Architecture Review - Contract Gap Analysis (independent contract gap analysis of the CIBS Architecture)
11-Jul-01	Two memos from Sydney Water IT to Mr Steven Baxter and Internal Audit. The memos highlighted a number of concerns around the delivery of the project
18-Jul-01	Report by Internal Audit to the Audit Committee on progress of DMR action plan. Internal Audit highlighted seven major outstanding issues identified by DMR. The Committee agreed that due to the level of attention given to CIBS by the Board, no further regular reports are required for this Committee
Aug-01	<ul style="list-style-type: none"> ▪ Sydney Water IT produced preliminary estimates for CIBS R3 WAMS ▪ Sydney Water IT made available CIBS R2 WAMS for deployment to UAT - not tested till Oct 01 ▪ R2 Acceptance Testing commenced (planned finish date moved from November 2000 to May 2001). There were interface components, ie Maximo that were still not delivered
15-Aug-01	<ul style="list-style-type: none"> ▪ Progress Report to the Board noted: <ul style="list-style-type: none"> ▫ R3 rescheduled from March 2002 to June 2002 ▫ project focus was resolution of issues and change requests for R3 closure of price negotiations. ▪ Board resolved to: <ul style="list-style-type: none"> ▫ note Urban Development (R2) phase was on track for implementation in November 2001 ▫ approve contract variation (variation of \$2.1 million for borrowing costs, variation of \$800,000 for R2 and two separate variations of \$3.0 million for essential business changes and sharing of costs associated with delayed implementation of R3)
15-Aug-01	CRs for R2 had been finalised and costs agreed. A sharing of costs was negotiated between PwC and Sydney Water with a final cost to Sydney Water of \$277,000, Sydney Water IT agreed to a 25% share of responsibility, resulting in a final cost to the project of \$525,000
7-Sep-01	Mr Jim Grant and Ms Alison Peters appointed as Directors of Sydney Water
Sep-01	Ms Denise Dawson appointed as GM -Customer Services
21-Sep-01	Mr Ralph Kelly appointed as Director of Sydney Water

25-Sep-01	<ul style="list-style-type: none"> ▪ Audit Committee clarifies that Internal Audit will remain involved with CIBS and report to the Committee as required ▪ Ms Denise Dawson formed the Operational Steering Committee which included members of the project team, business managers, Sydney Water IT, PwC and STS
Oct 01	R3 benefits realisation review commences
10-Oct-01	<p>Issues raised at the CIBS Executive Steering Committee:</p> <ul style="list-style-type: none"> ▪ finalisation of Trade Waste solution not yet been agreed ▪ outstanding unassessed change requests for R3 may have an impact on either costs/schedule ▪ design phase still incomplete - driven by level of issues and change requests. Impacts costs and could impact scope and schedule
17-Oct-01	<p>Paper reported to the Board noted:</p> <ul style="list-style-type: none"> ▪ R3 was tracking on time and within budget ▪ R2 undergoing UAT, anticipated R2 will go live in November 2001. R3 progressing to plan
Nov-01	<ul style="list-style-type: none"> ▪ Dedicated WAMS environment for R2 training commissioned ▪ Sydney Water IT documented it escalated WAMS issues surrounding lack of business agreement to requirements - not signed off till March 2002 ▪ Sydney Water IT commenced construction of CIBS R3 WAMS
12-Nov-01	<p>Issues raised at the CIBS Executive Steering Committee:</p> <ul style="list-style-type: none"> ▪ data volumes of conversion almost doubled. Conversion estimates based on pilot testing now exceeded implementation schedule ▪ UAT of CIS O/V v4 was significantly behind schedule and requires management attention ▪ if Trade Waste change requests were mandatory for R3 then these would have an impact on the delivery date for version 5.1 of CIS O/V or cause another release - both would affect 'go live' ▪ the unconfirmed delivery dates for WAMS enhancements for R3 were three months later than those in the Implementation Project Plan (IPP)
19-Nov-01	R2 went live in four phases, final phase completed by January 2002 (planned finish date March 2001). Integration was to be implemented as part of the R3 implementation. The full agreed functionality was not delivered, but was on program of rolling fixes agreed and appended to the UAT certificate
21-Nov-01	Mr Alex Walker advised the Board that R2 (e-developer) went live and 'although there are some difficulties, it is working well' and R3 is progressing to plan
Dec-01	<ul style="list-style-type: none"> ▪ PwC deemed the R3 design phase completed but there were still unsigned design documents (STS design documents and subsequent CRs) ▪ First time a fully configured version of CIS OV was available ▪ Sydney Water IT Test Centre commissioned with R3 UAT environment ▪ Configuration of CIS O/V completed (planned finish date end of April 2001)
19-Dec-01	<p>Managing Director's Report to the Board noted:</p> <ul style="list-style-type: none"> ▪ E-developer operational at both Liverpool and Rockdale; further rollout to Blacktown and Chatswood scheduled for January 2002. 'Application proven to be sound with minimal technical problems experienced' ▪ costs for project tracking to approved budget. Costs associated with WAMS are under review
Jan-02	<ul style="list-style-type: none"> ▪ Weekly Environment Stakeholders meeting convened comprising representatives from Sydney Water IT, Customer Services division and PwC ▪ Sydney Water IT raised issues regarding lack of test data and Tuxedo services which prevented adequate WAMS testing; not resolved until June 2002 ▪ GM-Customer Services recommends to the Managing Director that a project director be hired

15-Jan-02	Internal Audit reported weaknesses in R3 security (first identified in July 2000). These concerns had not been addressed yet
17-Jan-02	Gap analysis document highlighted major deficiencies in the functionality of CIS O/V when compared to the Information Security Standard applicable at the time the CIBS tender was awarded
Feb 02	CSD records risk assessment of a CIBS failure as 'possible' with a 'severe' impact
5-Feb-02	Sydney Water CIBS project director appointed. This role assumes all project manager duties over next three months
13-Feb-02	Issues raised at CIBS Executive Steering Committee: <ul style="list-style-type: none"> ▪ delay of two weeks in delivery of V5.1 ▪ CRs which were now unable to be delivered by PwC in the planned timeframe ▪ unrealistic amount of time allowed in the plan to complete UAT ▪ plan to complete UAT by mid August 2002 and implement by mid September 2002 ▪ Mr Alex Walker noted the need to be clear about what has actually been spent and what is likely to be spent, identifying the best and worst scenarios. PwC and Sydney Water agreed to provide estimates to completion for resources and hardware and meet again in two weeks prior to the Board meeting ▪ significant disagreement between Sydney Water and PwC regarding outstanding disputed costs remains
14 Feb-02	Sydney Water project director raised concerns about the ongoing viability of the CIBS project and reported them to Mr Alex Walker and Ms Denise Dawson. Issues included: <ul style="list-style-type: none"> ▪ 'current concerning situation is due to a lack of application of required expertise on both sides of the contract over a prolonged period. Consequently, insufficient attention was paid to a number of important aspects critical to the success of a major business change initiative such as CIBS' ▪ uncertain whether a satisfactory result could be achieved within a timeframe and total expenditure that would be acceptable to the Board ▪ in hindsight, the project problems stemming from the significant difference between agreed project specifications and what Sydney Water needed
20-Feb-02	Managing Director's Report to Board noted most work streams within R3 are progressing to plan and preparation for implementation is well underway
Mar-02	<ul style="list-style-type: none"> ▪ KnowHow Consulting Pty Ltd engaged to assist with management and planning for UAT ▪ Sydney Water IT (re-)advised project of technical constraints regarding location of technical and testing teams ▪ PwC engage their own audit team to review the project and test plans, including audit of UAT server to ensure compliance to project structure ▪ Andersens conducted a Contract Compliance Review commissioned by Internal Audit. This review highlighted several findings including: project timeliness, dependencies and associated costs did not appear to be fully recognised; internal costs were significantly less transparent; accountability for certain areas lacked formal agreement; management risks lacks formalised ongoing control which could result in unrecognised costs. Recommendations included the assessment that the effect the changes in costs would have on the project business case and overall returns
4-Mar-02	The Sydney Water project director prepared and presented a forecast cost to complete the project of \$95.2 million to Mr Alex Walker and Ms Denise Dawson. Mr Alex Walker advised the project director that Sydney Water uses net present value (NPV) analysis
7-Mar-02	The Sydney Water project director presents four alternative paths for CIBS to Mr Alex Walker and Ms Denise Dawson. He also orally advised them that he forecast a negative NPV (he also reported the negative NPV to Mr John Kitney)
19-Mar-02	The Sydney Water project director documented he presented a CIBS cost summary forecasting cost to complete the project of \$95.4 million (likely case) and \$103.7 million (worst case) to Mr John Kitney and the Sydney Water project manager. This was also presented to Ms Denise Dawson (11-03-02)

20-Mar-02	<ul style="list-style-type: none"> ▪ Prior to the Board meeting, the Sydney Water project director prepared information for Alex Walker. At the direction of Mr Alex Walker this was reduced to a Board paper and three overhead slides for the Board meeting ▪ Progress Report to the Board noted: <ul style="list-style-type: none"> ▫ with commencement of new Sydney Water project director, a detailed review of all project-to-date and anticipated future costs has been undertaken ▫ an impact analysis of CIBS across all business processes has been completed, while still retaining a similar benefit stream as in the original business case, a number of 'contra-benefits' and short term manual workarounds have been identified, which reduce the estimated operating benefits. The work arounds will be needed until such time as enhancements to CIBS are implemented ▫ several options for CIBS' future have been considered including to terminate the project. Key stakeholders were involved in the assessment and it recommended CIBS be continued ▫ a detailed review of the master project plan is currently underway to confirm whether September commissioning date is achievable. Additional funds will be required to address any further delay. Additional functional enhancements will continue to be assessed, negotiated and submitted for approval at a later date. ▪ Board noted: <ul style="list-style-type: none"> ▫ successful implementation of e-developer ▫ contractual disputes existing, in particular potential additional cost currently being negotiated with PwC ▫ alternative paths forward for this project and agreed to continue with project with an enhanced level of project management expertise and discipline ▫ result of current delays and extensions to critical path activities in areas of UAT and software delivery, the commissioning date for R3 is now planned for mid 2002 ▪ Board resolved: <ul style="list-style-type: none"> ○ to approve the continuation of CIBS subject to a focus on delivering improved customer service and commercial outcomes through business process redesign, and tighter project control, accountability and reporting ▫ to approve contract variation of \$2.2 million for internal financing costs, \$1.0 million for labour on-costs not previously included in CIBS budget and previously incurred costs of \$4.7 million. Total approved budget to date is now \$60.0 million ▫ additional funding of \$1.0 million up to \$8.3 million to be subject to decision by Chairman and Managing Director
Apr-02	<ul style="list-style-type: none"> ▪ Sydney Water IT delivered 3rd drop of WAMS modules to PwC
4 Apr 02	Commencement of "Round 1" commercial negotiations between Sydney Water and PwC
12-Apr-02	<p>Issues raised at CIBS Executive Steering Committee Meeting:</p> <ul style="list-style-type: none"> ▪ Sydney Water IT noted concern over long term technical viability of CIBS dating back to the architectural review of September 2000 which raised concerns in regard to the overall approach and design of CIBS that has never been resolved ▪ agreed to invite Mr John Kitney (GM -Finance) and Mr Paul Freeman (GM-Asset Management) to the meetings ▪ Sydney Water project director noted the biggest risk to the project is not having an integrated plan with linked dependencies ▪ outstanding issues and 'mandatory' CRs pose a significant risk to the September 2002 'go-live' date
17-Apr-02	<p>CSD Business Report to the Board noted:</p> <ul style="list-style-type: none"> ▪ it reached a significant milestone with successful implementation of CIBS R2 ▪ R3 scheduled for September 2002 ▪ CIBS implementation and effective benefit realisation remains a major focus
May-02	<ul style="list-style-type: none"> ▪ Sydney Water IT documented it advised that system integration testing was not adequate due to test data and Tuxedo services issues raised continually since Feb 02 ▪ Sydney Water IT drop 4th and final drop of WAMS modules to PwC

17-May-02	<p>Issues raised at CIBS Executive Steering Committee:</p> <ul style="list-style-type: none"> ▪ technical readiness in serious jeopardy - several factors include; differences between detailed aspects of ACCESS functionality and the CIBS solution; increase in new test conditions and potential for more with emerging CRs; late completion of development and system testing of CIBS components; occurrences of breakdown in process between work streams (as reported in the May 2002 Technical Readiness Report) ▪ several significant issues impacting the project timetable highlighting the significant areas of concern ▪ commercial negotiation process with PwC underway and monitored by Internal Audit as probity auditor ▪ Mr Alex Walker commented that he did not get an overwhelming sense of confidence from the team that the actions identified would correct current problems (as recorded by Sydney Water)
28-May-02	<ul style="list-style-type: none"> ▪ A meeting held with Ms Denise Dawson, Mr John Kitney and CSD senior management discussing cash flow implications of CIBS implementation ▪ PwC QA Review Report completed on the project. Sydney Water project management were unsatisfied with the report, believing the QA report appeared sanitised and did not recognise the seriousness of the shortcomings on PwC's part
13-Jun-02	<p>Accenture Pro-Bono Workshop covering lessons learnt and issues to be aware of in relation to UAT and Business Readiness</p>
14-Jun-02	<ul style="list-style-type: none"> ▪ Manager Customer Operations appointed to CIBS Executive Steering Committee ▪ Issues raised at CIBS Executive Steering Committee: <ul style="list-style-type: none"> ▫ from the Accenture Pro-Bono workshop, Ms Denise Dawson discovered significant gaps in expertise that were evident on the project and the necessity to get required expertise ▫ Mr Alex Walker points out that he had seriously contemplated cancelling the project and ending the relationship with PwC on the basis that they had not and were not capable of delivering the result ▫ still pressures on September 2002 'go-live' date and UAT execution alternatives considered ▫ PwC has not met 31 May 2002 delivery date for the entire solution being handed over for UAT. PwC and Sydney Water IT continue to address outstanding defects, integration testing and development of remaining components scheduled for later delivery ▫ retaining the September 2002 'go-live' date cannot be achieved without significantly increasing the risk profile of the project by implementing a partially-tested solution ▫ UAT team are to be dramatically restructured and up-skilled to ensure that future dates are far less likely to be missed
Jun-02	<p>Sydney Water IT documented it was forced by PwC to modify WAMS modules to accommodate Tuxedo method changes made by PwC to attempt to resolve bugs</p>
19-Jun-02	<ul style="list-style-type: none"> ▪ Mr Alex Walker recommended to the Board to defer the commissioning date beyond September 2002, because of issues associated with the project progress (no issues specified except that a review of the master project plan was underway) ▪ Board resolved: <ul style="list-style-type: none"> ▫ UAT is still outstanding and will take longer to test than the time available ▫ as a result of the issues associated with project progress (issues not specified) including the detailed review of the master project plan, recommends commissioning date be deferred beyond September date. No final decision on new date has been made at this point ▫ Sydney Water has not yet estimated additional funds necessary to complete the project and recommendations in this areas will form part of a more detailed report to be submitted to the July Board meeting.

July-02	<ul style="list-style-type: none"> ▪ Accenture were appointed to assist with management of UAT for R3 implementation. Without major re-work of existing approach (as reported in Sydney Water's chronology) ▪ CSD records risk assessment of a CIBS failure as 'possible' with a 'severe' impact whereas Corporate records the failure as 'likely' and 'severe'
10-July-02	<p>Issues raised at CIBS Executive Steering Committee:</p> <ul style="list-style-type: none"> ▪ number of new CRs being created has reduced to a low level per week. Any CRs from now on is likely to have a significant impact on the 'go-live' date ▪ there are 102 critical and significant defects found in system and integration testing to be cleared. PwC expect it to approach zero (<10) by end of July ▪ test conditions are still to be completed by PwC ▪ clause 17.1 of the contract requires agreement between Sydney Water and PwC ▪ review of UAT execution alternatives and contingency options
12 Jul 02	<p>Extraordinary CIBS Executive Steering Committee meeting was held. This was a workshop with additional participants to understand issues facing the project and consider later commissioning dates</p>
17-Jul-02	<ul style="list-style-type: none"> ▪ Managing Director's Report to the Board noted: <ul style="list-style-type: none"> ▫ the importance of ensuring adequate time and resources for UAT to better manage the risks and ensure the delivery of 'reliable and accurate bills to customers' ▫ Mr Alex Walker further noted series of alternative implementation approaches is currently being analysed in detail, which will indicate appropriate dates to be targeted for deferred commissioning of CIBS. ▪ Progress Report to the Board noted: <ul style="list-style-type: none"> ▫ 'Round 1' commercial negotiation with PwC for disputes as at 31 May 2002. \$7.4 million was the figure after contractual and commercial negotiation. From this amount, \$4.6 million relates to internal Sydney Water costs and a \$2.8 million amount payable to PwC. At this stage formal approval for this funding was pending from Mrs Gabrielle Kibble and Mr Alex Walker ▫ restructuring of UAT; Involvement of additional third party assistance in UAT ▫ additional funding not yet determined ▪ Board resolved: <ul style="list-style-type: none"> ▫ commit to revised implementation date of April 2003, subject to results of current detailed investigations and receipt of final solution from PwC, STS and Sydney Water IT ▫ a presentation of results of current investigations and specific recommendations to be made to August Board meeting
Aug-02	<p>Sydney Water IT conducted monitoring of WAMS transactions and provided report and suggestions to PwC to resolve poor performance</p>
6-Aug-02	<p>Internal Audit reports findings on corporate risk program. These findings include:</p> <ul style="list-style-type: none"> ▪ No documented process for determining a priority listing of what business units/functions were to be included ▪ Unclear as to the extent to which risk management processes extend beyond a divisional level ▪ Divisional risk coordinators are not sufficiently accountable
7-Aug-02	<p>Memo from Internal Audit to Ms Denise Dawson and Sydney Water project director pointed out that the CIBS security upgrades were necessary prior to going 'live'</p>

14-Aug-02	<p>Issues raised at CIBS Executive Steering Committee:</p> <ul style="list-style-type: none"> ▪ technical readiness is still at risk ▪ CRs still emerging ▪ system and integration testing - there are 45 outstanding category 1 and 2 defects ▪ disagreement between PwC and Sydney Water over the scope and responsibility for testing of the configuration of CIS O/V and MarKIT ▪ data conversion below expectations ▪ solution not yet available from PwC despite being due on 31 May <p>Batch performance was an issue:</p> <ul style="list-style-type: none"> ▪ Go live would be impossible without batch performing properly. Batch performance testing was critical to the project success ▪ batch performance testing is running behind schedule ▪ implementation rehearsal #4 has encountered significant issues and was abandoned because of the problems encountered with new activities ▪ acceptance criteria for R3 are not yet defined or agreed ▪ UAT plan is being prepared and draft dates have been included in the Summary IPP ▪ legal advice being sought regarding the respective responsibilities for testing and that this was being negotiated with PwC
21-Aug-02	<ul style="list-style-type: none"> ▪ Board noted: <ul style="list-style-type: none"> ▫ commissioning date for CIBS solution is now planned for mid-March 2003. Additional funds are being estimated and submitted for approval by Board. ▫ need for significant additional UAT has been met by appointment of a team of testing experts from Accenture ▫ significant critical activities associated with preparing the business for the new solution are well in hand and in some areas, a rehearsal of activities to cut-over to the new solution has already been undertaken ▫ acquisition of PwC Consulting by IBM Australia (IBM) ▪ Progress Report to the Board noted: <ul style="list-style-type: none"> ▫ CSD expects to commence transition activities from the current system in January 2003. Cut-over to the new system is planned for mid March 2003 with the first quarterly bills planned to be issued on 1 April 2003 ▫ UAT is well underway with assistance of additional 3rd party resources (Accenture) ▫ business readiness - detailed planning for commissioning activities has been completed and the business is well prepared ▫ 'round 2' PwC commercial negotiations recently commenced ▫ accurate cost estimates cannot be prepared until further UAT completed
22-Aug-02	<p>Legal expertise Phillips Fox engaged</p>
Sep-02	<ul style="list-style-type: none"> ▪ Sydney Water sends final draft of 2002-03 Statement of Corporate Intent to NSW Treasury and CIBS is not identified as a major risk ▪ Sydney Water project manager leaves the project ▪ A revised project structure and test management process announced. Resulted in: <ul style="list-style-type: none"> ▫ rework of test procedures, cases and expected outcomes ▫ major move of project staff between Liverpool and City ▫ PwC and Sydney Water IT support teams are merged

18-Sept-02	<ul style="list-style-type: none"> ▪ Board discussed the additional funding likely to be required to finalise the project and alternative pathways forward and agreed to continue with the project at this stage ▪ Board expressed concern about past and future expenditure ▪ Board noted: <ul style="list-style-type: none"> ▫ a paper be prepared for October Board meeting outlining clear recommendations including advice from current investigations and discussions with IBM, legal advice and recommended total figure for approval to ensure implementation by mid-March 2003 ▫ commissioning date for CIBS planned for mid-March 2003 ▫ project has completed a highly successful 'dress rehearsal' of significant critical activities associated with preparing the business for the new CIBS solution ▫ commercial position and arguments are now supported by added third party legal advice ▫ the focus continues to be on the delivery of a fully tested CIBS solution by the commissioning date ▪ Progress Report to the Board noted: <ul style="list-style-type: none"> ▫ commissioning date is planned for mid-March 2003. Additional funds will be required for time extension ▫ project recently completed a highly successful 'dress rehearsal' for business processes ▫ UAT operation established to carry out testing necessary to confirm that the new solution meets business requirements is underway ▫ audit of contract compliance by all parties has been initiated ▫ recent events have revealed that a significant set of contractual obligations have not yet been met by PwC: <ul style="list-style-type: none"> - the now more than 4-month late* delivery of completed CIBS solution by PwC (*against earlier September 2002 commissioning date) - lack of adequate pre-testing of the CIBS solution performed by PwC and their subcontractor - inability of PwC to deliver a production-ready solution capable of operating in the required overnight batch processing timeframe - inadequate consideration of skills/knowledge transfer from PwC to Sydney Water to enable ongoing operation of the solution by the business and Sydney Water IT ▫ a detailed model of projected costs has already been prepared for various outcomes. Precise additional costs are dependant upon second round negotiations with PwC ▪ 'Out of Session' Audit Committee meeting. The Audit Office raised concerns at the blowout in CIBS costs and further delays to implementation. Mr Alex Walker responded that the project was tracking well. The Directors present at the meeting did not question his comments.
18 Sept 02	We advise Audit Committee that CIBS was inadequately discussed in the draft 2002 Annual Report. Board's Chairman asks management to alter wording to our satisfaction
24 Sept 02	Project manager approves variation #8 of the PwC contract for \$2.8 million
1 Oct 02	GM-Customer Services signs the Settlement Deed with PwC for \$2.8 million
Oct 02	Managing Director and GM -Customer Services brief Chairman
14-Oct-02	<p>Date of Accenture CIBS Project Report, on their review of CIBS commissioned by the Board. The independent review found that the March 2003 'go-live' date was unachievable and should be abandoned. The review also noted that there were doubts as to whether:</p> <ul style="list-style-type: none"> ▪ the CIBS solution could work ▪ the CIBS solution would meet Sydney Water business requirements ▪ the CIBS platform is viable long-term ▪ Sydney Water can maintain the solution

15-Oct-02	Sydney Water IT attend special project meeting convened by Mr Alex Walker to discuss CIBS future, along with external legal advisors, corporate communications and other project staff
16-Oct-02	<ul style="list-style-type: none"> ▪ Mr Alex Walker discussed the CIBS solution testing, revised projected costs for the solution and commercial negotiations with PwC. Preliminary legal advice from Phillips Fox was tabled in relation to the Board's contractual options. Board expressed 'serious concerns about the continued non-delivery of the project to an acceptable standard'. In particular noting: <ul style="list-style-type: none"> ▫ Accenture Report commenting that the project could not be completed to an acceptable standard, at an acceptable cost and in a timely manner ▫ summary of costs incurred to date and estimates of costs to be incurred ▫ Preliminary advice from Phillips Fox on contractual options ▪ Progress Report to Board noted: <ul style="list-style-type: none"> ▫ a revised and more representative Implementation Project Plan has been prepared by PwC ▫ indications at this stage of testing are that there is a 'concerningly' high level of defects in the core CIBS solution; these defects are generating a 'concerningly' high level of change requests at a time when the solution should be stabilising; and the CIBS Management team's current capacity to resolve the defects in a timely manner is nearing saturation ▫ costs for CIBS extension to March 2003 will be presented for consideration in October 2003 ▫ no further progress on 'round 2' PwC negotiations. Phillips Fox continues to assist Sydney Water to enforce performance and delivery aspects of PwC. This pressure has succeeded in that PwC improve performance and expertise ▫ mid-March commissioning date represents significant challenge. PwC has advised that while still achievable, it is difficult and dependent upon many interrelated factors ▪ Board resolved that: <ul style="list-style-type: none"> ▫ giving due regard to its options under the CIBS contract, Sydney Water not proceed with the CIBS solution in its current form ▫ the project team, on an urgent basis, develop options for Sydney Water to redefine the project with a view to achieving the best outcomes for Sydney Water and maximising the benefits of work done to date ▫ delegation of authority be given to the Chairman and Managing Director to take any actions which may be necessary before the next scheduled meeting
18-Oct-02	<ul style="list-style-type: none"> ▪ Mr Alex Walker announced to Sydney Water staff that the Board resolved that the CIBS project will not continue in its current form ▪ Treasurer requested the Auditor-General perform a review on the CIBS project ▪ Chairman makes public statement CIBS will not continue in its current form
28-Oct-02	We review the Annual Report again and e-mail our view of contents on CIBS to GM -Corporate Affairs and Corporate Secretary and GM -Finance
28-Oct-02	Discussions with private sector partners commenced
30-Oct-02	<p>Board resolved:</p> <ul style="list-style-type: none"> ▪ to take all necessary steps to terminate the CIBS contract for the contractor's inability to complete the project in accordance with that contract ▪ explore options for recovery of any loss or damage sustained by Sydney Water ▪ that grounds for termination not be limited to the contract but be pursued through common law ▪ that the Chairman and Managing Director be authorised to take all action necessary to effect termination of the CIBS contract
31-Oct-02	Mr Alex Walker announced to Sydney Water staff that the CIBS project has been terminated for the contractor's inability to complete the project
1-Nov-02	Release of media statement 'Sydney Water terminates CIBS contract'

20-Nov-02	<ul style="list-style-type: none"> ▪ Internal Audit report to the Audit Committee on progress with the March 2002 Contract Compliance Review action plan. Recommendations still outstanding, particularly noting that the review of business case was never formalised (which management had agreed to have reviewed and updated by 30 September 2002). The management response to the outstanding recommendations was that the project '... increasingly focused on realising the positive outcomes to be delivered by the project'.
20-Nov-02	<ul style="list-style-type: none"> ▪ Release of media statement from Mrs Gabrielle Kibble announcing that the Board accepted Mr Alex Walker's resignation on the grounds of ongoing ill health and Mr Ron Quill appointed as acting Managing Director
22-Nov-02	<p>Issues raised at CIBS Executive Steering Committee:</p> <ul style="list-style-type: none"> ▪ it was determined that a need exists to agree the highest priority CRs necessary to enable R2 to function to the required level ▪ suggestions made to cull from 70 CRs issues to the subset of 15 that Sydney Water must have and then get the funding for these.
27-Nov-02	The Audit Office interviews the Sydney Water Project Director
28-Nov-02	The Audit Office interviews Mr Alex Walker
29-Nov-02	Mr Alex Walker's last day
11-Dec-02	Sydney Water posted letters to Portfolio Minister and Voting Shareholders that the CIBS contract was terminated and the current events

NB: There were 45 meetings where the Sydney Water project director and/or Ms Denise Dawson briefed Mr Alex Walker on CIBS between 21 January 2002 and 30 October 2002 (excluding steering committee meetings).

SYDNEY WATER'S RESPONSE



4 April 2003

Mr AT Whitfield
Deputy Auditor-General
The Audit Office of New South Wales
Level 11
234 Sussex Street
SYDNEY NSW 2000

Dear Mr Whitfield

**Re: Response by Sydney Water Corporation ("SWC")
to the Draft Auditor-General's Report on the Review of CIBS**

Thank you for your letter dated 24 March 2003.

This letter and the 32 page attachment constitute SWC's response to the Auditor-General's draft report. SWC requests that the Auditor-General consider each of SWC's responses and amend the draft report as required.

SWC has not responded in detail to every key finding and related paragraphs. This is because they raise issues which are likely to be considered in the potential litigation between SWC and PwC. SWC is necessarily constrained in responding to the draft report. Accordingly, SWC formally denies that the findings and assertions made in the draft report are accurate or based upon provable facts.

Whilst SWC's review of the draft report is detailed in part, SWC should not be taken as consenting to or agreeing with any assertions in the report that have not been expressly commented on.

Furthermore, to the extent that the draft report purports to make findings of an expert nature, SWC rejects these findings.

SWC's legal relationship with PwC

SWC refutes any assertion in the draft report which expressly or by inference characterises SWC's role in the CIBS project as anything other than relying upon the judgement, skill and expertise of PwC to deliver the CIBS.

Timing and context of the Audit

It needs to be recognised that this audit was commissioned in October 2002. This was a time when actions needed to be taken in relation to potential litigation. There were inherent pressures on SWC and its officers. This, together with the concern that the audit might adversely impact on the litigation, compromised SWC's capacity, despite best efforts, to respond to the Audit Office's inquiries.

Sydney Water Corporation ABN 49 776 225 038
115-123 Bathurst Street NSW 2000 Australia PO Box A53 Sydney South NSW 1232 Australia
Telephone (02) 9350 6969 Facsimile (02) 9350 6814 DX 14 Sydney Internet www.sydneywater.com.au

Focus on SWC

The draft report relates to a major project undertaken by SWC, a State owned corporation. The audit findings have relevance to public administration generally in NSW. Hence, the focus of the audit has been on SWC and its officers. The Audit Office exercised its considerable powers of access to SWC documentation and officers. The fact that the audit focused overwhelmingly on SWC (as distinct from PwC) should not carry with it any adverse inference in relation to SWC's legal relationship with PwC. This should be specifically recognised and acknowledged in the report.

Governance

The Auditor-General ought to be aware that the Board is responsible for setting the overall policy and direction of SWC. The Board exercises its responsibilities at regular meetings and, where necessary, at meetings of duly authorised Committees at which are considered:

- (a) Strategic and other corporate plans;
- (b) Annual budgets;
- (c) Management reports;
- (d) Other reports from the Managing Director; and
- (e) Other matters brought to the Board for decision.

The Board delegates the day-to-day management of SWC to the Managing Director. The Board relies on the Managing Director to be its 'eyes and ears' in the day-to-day management of the corporation and to provide it with factual and pertinent information which enables the Board to make informed decisions related to its governance responsibilities. The Board relies on the Managing Director to be its conduit for decisions and actions resolved by it such that they are reflected in the directions given by the Managing Director to senior management.

Audit Committee

It is of concern to note that the Auditor-General has at least inferentially criticised SWC's Audit and Risk Management Committee. The Audit Office has two representatives at Audit and Risk Management Committee meetings and they have been afforded every opportunity to contribute and comment on the Committee's deliberations. SWC has concern that the specific criticisms contained in your draft report may not have been clearly expressed at the subject meetings.

SWC also notes that, despite the comments on the level of disclosure on CIBS and the capitalisation of costs, the Auditor-General's audit opinion contained within the 2002 Annual Report contains no qualification on these matters.

Directors and Officers

The Auditor-General makes adverse comments in the draft report in relation to some of SWC's officers. Whilst SWC is constrained by the potential litigation from responding in detail to these comments, SWC wishes to place clearly on the record that it denies that there is any basis for these comments.

SWC is of the firm view that its directors and officers have at all times acted in good faith exercising their best judgement and endeavours.

Final Report

SWC requests that the Auditor-General attach this letter (and attachment) to its final report.

Yours sincerely

RON QUILL

Acting Managing Director

Encls.

cc: Mr L White
Assistant Auditor-General
The Audit Office of New South Wales

ATTACHMENT TO SYDNEY WATER'S RESPONSE

KEY FINDINGS

Project Governance

- **Management did not always report important issues to Sydney Water's Board of Directors in a clear, complete and timely manner**

For the reasons set out in the body of the report, this key finding should be amended as follows:

It is not evident from the documentary material available whether or not management always reported important issues to Sydney Water's Board of Directors in a clear, complete and timely manner.

- **The Board did not oversee the project effectively, and its understanding of the project was limited**

There is no basis for the assertions that:

- *the Board did not oversee the project effectively; or*
- *the Board's understanding of the project was limited.*

For these reasons and for the detailed reasons set out in the body of the report, this key finding should be deleted from the report.

- **Sydney Water did not effectively follow up and address recommendations from a 'Health Check' review**

For the reasons given in the body of the report, the finding should be amended to read:

*Sydney Water did not follow up and address **all of the** recommendations from a 'Health Check' review.*

Project Specification

- **Project planning and specifications were inadequate, contributing to many change requests and significant additional costs and delays**

Sydney Water denies that the finding is accurate or based upon provable facts.

Sydney Water does not comment in detail on this key finding. This is because it deals with issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

- **The project team lacked certain skills to do the job**

Sydney Water denies that the finding is accurate or based upon provable facts.

Sydney Water does not comment in detail on this key finding. This is because it deals with issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

- **Sydney Water recognised that it needed a business improvement process, but during the project it reverted to only implementing a computer system**

Sydney Water denies that the finding is accurate or based upon provable facts.

Sydney Water does not comment in detail on this key finding. This is because it deals with issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC. Sydney Water denies that the finding is accurate or based upon provable facts.

- **There was poor communication between the project team and the Customer Services Division. This greatly weakened the project**

There is reference only to 'past' poor communication in the DMR report and no link is made between that past communication and the assertion that it 'weakened the project'. This key finding should be amended as follows:

In the early stages of the project, there was poor communication between the project team and Customer Services Division (CSD).

- **An integrated project plan was not maintained during the project**

Sydney Water denies that the finding is accurate or based upon provable facts.

Sydney Water does not comment in detail on this key finding. This is because it deals with issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

- **Testing was neither timely nor comprehensive**

Sydney Water denies that the finding is accurate or based upon provable facts.

Sydney Water does not comment in detail on this key finding. This is because it deals with issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

- **There was a belief in Sydney Water that projects of this nature and complexity would inevitably go over budget and be delayed**

There is no basis for this finding. This finding should be deleted.

Selection of Suitable Contractor

- **Contract administration was deficient. One variation to the contract transferred significant responsibilities and risks from PwC back to Sydney Water**

Sydney Water denies that the finding is accurate or based upon provable facts.

Sydney Water does not comment in detail on this key finding. This is because it deals with issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

Cost Estimation

- **The final cost forecast for CIBS was \$135.1 million, compared to the original budget of \$38.2 million**

For the reasons set out in the body of the report, the key finding should be amended as follows:

*The final estimated forecast for CIBS, **if completed**, would have exceeded \$110 million, compared to the original budget of \$38.2 million*

RECOMMENDATIONS

The recommendations made by the Audit Office should be amended to reflect the issues raised by Sydney Water in this response.

PROJECT GOVERNANCE

Management did not always report important issues to Sydney Water's Board of Directors in a clear, complete and timely manner

Statement in Report:

From the commencement of the project, procedures for reporting to the Board of Directors (Board) were irregular.

Sydney Water's Response:

The Board was given a range of information on the status of CIBS by way of extracts from various reports, including reports from the Managing Director, Capital Expenditure Program, CSD and Treasury on an almost monthly basis from May 2000 to October 2002.

In particular, detailed written progress reports were given to the Board from:

- *the General Manager of CSD in April, June, August and October 2001, March, April, July, August, September, October and November 2002; and*
- *the Managing Director in April, June, September, October, November and December 2001, February, March, April, May, June, July, August, September and December 2002.*

In addition, oral reports from the Managing Director, were provided to the Board in April, June and August 2001 and March, June, July, August, September and October 2002 (two meetings).

This sentence should be deleted from the report.

Statement in Report:

In most cases the information presented was brief, unclear or incomplete. It did not provide a 'complete picture' of the project's status to the Board on a regular basis.

Sydney Water Response:

Whether the information presented to the Board was 'brief, unclear or incomplete' can only be determined from a complete review of the written and oral reports provided to the Board and of the discussions the Board had on the issues during its meetings. It is not possible to obtain a full or adequate understanding of the information presented to the Board from only the Board papers and minutes of meetings.

The Board minutes indicate that the Managing Director briefed the Board orally on the status of the CIBS project as well as providing the Board with the General Manager's papers.

The sentence should be amended as follows:

*In **some** cases the information presented **may not have provided** a 'complete picture' of the project's status to the Board'.*

Statement in Report:

This deficiency meant that the Board was not adequately informed of significant issues and risks ... particularly evident for March 2002 Board meeting.

Sydney Water Response:

See comments in relation to page 5, paragraph 1 above.

There is no basis for a suggestion of any 'deficiency' or that the Board was not informed of 'significant issues and risks'. The minutes of the Board meeting for March 2002 states that the Managing Director gave the Board an oral briefing on the project including, contractual issues and project management controls around high risk areas, and that there was discussion by the Board of the issues affecting the project at that time. This discussion lasted 78 minutes.

This sentence should be deleted from the report or amended as follows:

On occasions, the Board may not have been informed of all issues or risks.

Statement in Report:

In September 2002 the Board was still supporting the delivery of a fully tested CIBS solution.

Sydney Water's Response:

This does not accurately record the minutes of the Board meeting. It is evident from the minutes of that meeting that the Board noted, amongst other things, that the focus continues to be on delivery of a fully tested CIBS solution by the commissioning date.

This sentence in the report should be amended as follows:

*In September 2002 the Board **noted, amongst other things, that the focus continues to be on delivery of a fully tested CIBS solution by the commissioning date.***

Statement in Report:

Progress reports to the Board did not suggest significant doubts about the delivery of CIBS outcomes, even though the CIBS Executive Steering Committee minutes show that the number of significant issues was increasing. The issues included...

Sydney Water's Response:

The progress reports to the Board identified a number of issues including, the level of the functionality of the solution, the delay in the delivery of the solution and contract deliverables (including delay to the go-live date'), the necessity for the increased involvement of Sydney Water personnel, issues raised in respect of the testing of the solution, the number of test problem reports (TPRs) and the delays in the provision by PwC of the Integrated Project Plan.

The sentence in the report should be amended to record the issues that were identified in the progress reports to the Board.

Statement in Report:

Between August 2001 and March 2002 no progress reports were presented to the Board.

Sydney Water's Response:

This is incorrect. During this period, progress reports were provided to the Board on 19 September 2001, 17 October 2001, 21 November 2001, 19 December 2001 and 20 February 2002. There was no Board meeting in January 2002.

This sentence should be deleted from the report.

Sydney Water's Response:

It should also be noted in the report that Sydney Water relied on the expertise, skill and judgment it procured from PwC.

Statement in Report:

In view of concerns raised by the Project Director of the forecast negative NPV and cost to complete the project, it is not clear why the GM-Finance, GM-Customer Services and the Managing Director did not take action to further investigate these issues.

Sydney Water Response:

Sydney Water refers to the comments made in response to page 6, paragraph 3 above. It is wrong to suggest that no action was taken to investigate these issues.

The sentence should be deleted.

Statement in Report:

In June 2002, the Board requested ...The progress report stated 'At this stage we have yet to estimate the additional funds necessary to complete the project'. Similar comments were made...

Sydney Water's Response:

From July 2002, the Board was orally advised of likely costs to complete the project and that this was very dependant on the go-live date. The go-live date was dependant on the quality of the solution, adequate system and integration testing (PWC responsibility) and then finally Sydney Water user acceptance testing. These issues were all discussed with the Board.

A number of options were presented to the Board in October 2002 with a cost range of \$114 million to \$150 million.

The report should be amended to delete the second and third sentences commencing 'The progress report stated ...' and ending '...and September progress reports.' And replaced with:

The Board was advised of likely costs to complete the project and that this was very dependant on the go-live date. The go-live date was dependant on the quality of the solution, adequate system and integration testing and then finally user acceptance testing. These issues were discussed with the Board.

Statement in Report:

Sydney Water project management had been aware since March 2002 that the project was in serious trouble.

Sydney Water Response:

Sydney Water did not consider the project was in serious trouble at March 2002. There were concerns at this time around some issues, which were reported on to the Board. This sentence should be deleted.

The Board did not oversee the project effectively, and its understanding of the project was limited

Statement in Report:

The reporting by management to the Board on the status of CIBS was deficient.

Sydney Water Response:

For the reasons set out under Project Governance page 5, paragraphs 1 and 2 this sentence should be deleted from the report.

Statement in Report:

When the IT architecture framework was completed... it found that it failed 19 out of the 20 requirements.

Sydney Water's Response:

The DMR report (at page 68) questioned the evaluation criteria used in the CIBS Architecture review prepared in October 2000. This should be recorded in the report.

The report should be amended as follows:

An architecture review prepared in October 2002 found that the IT architecture framework failed 19 out of the 20 requirements. The DMR report questioned the evaluation criteria used in this review. Nonetheless, Sydney Water IT worked with the CIBS project team to ensure that, as far as possible, the CIBS system was compatible with its IT architecture framework.

Statement in Report:

That an external auditor was not engaged ...

Sydney Water Response:

DMR was engaged in December 2000 to undertake an extensive external audit (referred to as Project Health Check) to provide an independent review of the CIBS project. This audit was oversights by Internal Audit and the findings were reported to the then GM Customer Service, the Internal Auditor and to the Audit and Risk Management Committee. The purpose, scope and methodologies of this review are clearly documented and supported by a 101 page report with detailed findings and recommendations.

This paragraph should be removed from the report.

Statement in Report:

The Board requested management to provide bi-monthly project updates to the Board. These reporting requirements were not adhered to...

Sydney Water's Response:

The Board was given a range of information on the status of CIBS by way of extracts from various reports, including reports from the Managing Director, Capital Expenditure Program, CSD and Treasury on an almost monthly basis from May 2000 to October 2002.

In particular, detailed written progress reports were given to the Board from:

- *the General Manager of CSD in April, June, August and October 2001, March, April, July, August, September, October and November 2002; and*
- *the Managing Director in April, June, September, October, November and December 2001, February, March, April, May, June, July, August, September and December 2002.*

In addition, oral reports from the Managing Director, were provided to the Board in April, June and August 2001 and March, June, July, August, September and October 2002 (two meetings).

The Board received reports more regularly than 'bi-monthly'. These reporting requirements were adhered to by management. The second sentence commencing 'These reporting requirements...' should be deleted from the report.

Statement in Report:

The DMR Report of February 2001, which was commissioned by the GM-Customer Services to serve as 'Health Check'...

Sydney Water's Response:

DMR was engaged to undertake an extensive external audit.

This sentence should be amended as follows:

The DMR ...GM-Customer Services as an extensive external audit (referred to as 'Project Health Check')...

Statement in Report:

More rigorous questioning of management at that time might have clarified that the project was in serious trouble at that stage.

Sydney Water Response:

The Board questioned management at the March 2002 meeting. These questions are not recorded in the minutes. There is no basis for the assertion that 'more rigorous questioning... might have clarified that the project was in serious trouble' in March 2002.

Further, as stated in the comments on page 6, paragraph 8 above, Sydney Water did not consider that the project was in 'serious trouble' in March 2002.

This sentence should be deleted from the report.

Statement in Report:

It was not until September 2002 that the Board expressed concern with the project and requested information on current investigations, legal advice and the total budget required to implement the project.

Sydney Water Response:

The Board closely monitored the project from at least March 2002. In September 2002 it was indicated that the project was in significant difficulty. The project was terminated in October 2002. This should be recorded in the report.

The report should be amended as follows:

The Board closely monitored the project from at least March 2002. In September 2002 it was indicated that the project was in significant difficulty. The CIBS project was terminated in October 2002.

Statement in Report:

Through our attendance at the Audit Committee meetings, we were aware that the Committee's use of Internal Audit on CIBS was not as strong as we would have expected. We also noted a lack of rigorous questioning ...

Sydney Water Response:

Sydney Water notes the Audit Offices attendance at the Audit Committee meetings. Sydney Water expects that the Audit Office would have raised any real concerns that it had at the time rather than waiting until the project was terminated and a review conducted.

In so far as the suggestion of a lack of questioning at the Audit Committee meeting on 18 September 2002 is concerned, the Audit Office is aware that the full Board was closely overseeing the project and at the Board meeting of 18 September 2002 had received detailed reports from management and requested certain further information with regard to the project. In the circumstances, this comment is unwarranted.

This point should be deleted from the report.

Sydney Water may have not proceeded with CIBS if it had done a timely analysis of the Technical Proof of Concept

Sydney Water denies that the assertions made are accurate or based upon provable facts. With the exception of inaccuracies based upon documentary material, Sydney Water does not respond in detail to the assertions made in the paragraphs of the report that deal with this key finding. This is because the report raises issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

Statement in Report:

At the end of this [analysis] phase, Sydney Water had the option to terminate the contract with PwC at a total cost of \$965,809.

Sydney Water's Response:

An interim contract was entered into in anticipation of the CIBS contract being entered. The interim contract provided that if the CIBS contract was not entered, the parties would be released and Sydney Water would have had to pay PwC up to \$965,809 for work done under the interim contract. However, the CIBS contract was entered and superseded the interim contract. Under the CIBS contract, Sydney Water had termination rights under clauses 19.1(c), 19.1 (d), or 28 or Schedule 11 of the CIBS contract, but with a payment of significantly greater sums than \$965,809. It is also important to note that under the CIBS contract, payments of approximately \$3.8m had already been paid by the end of the analysis phase.

This sentence should be deleted from the report or amended to reflect the true position.

Statement in Report:

Sydney Water did not critically examine the results of the TPOC until December 2000.

Sydney Water's Response:

The TPOC Final Report was provided by PwC on 28 July 2000 and signed off on 2 August 2000. This ought to be recorded in the report.

The sentence in the report should be deleted and replaced with:

Sydney Water was provided with the TPOC Final Reports by PwC on 28 July 2000. Sydney Water signed off the report on 2 August 2000. Group Audit later commissioned a review of TPOC in December 2000.

Statement in Report:

Some of the applications were never meant to be integrated and 'CIS Open Vision (main system) did not prove as trouble free as expected' (TPOC finding).

Sydney Water's Response:

This finding is not stated in the TPOC Final Report. TPOC Final Report states that all of the systems of CIBS could integrate. This sentence should be deleted from the report.

Statement in Report:

It was in that meeting, the Sydney Water Project Manager was quoted as stating 'that the TPOC was a limited scope exercise conducted by the contractor, PwC, as part of its methodology'. In our view the importance of TPOC was not fully appreciated by Sydney Water.

Sydney Water's Response:

It appears that the Sydney Water Project Manager was quoting from the Ernst & Young review. In its review, Ernst & Young noted that although the agreed approach and tests as laid out in the CIBS TPOC Test Results were documented as having been met and signed-off, the TPOC did not go far enough, in the tests conducted, to adequately prove the facilities would operate as required, reliably or with the required level of performance once in a production situation. Further, Ernst & Young noted that the inability of PwC to make available sections of the agreed Project Development Methodology pertinent to TPOC type activities means there is no way to ensure that the TPOC was run according to this methodology, SWC best practice, or within SWC project guidelines, if applicable, or that all areas of considerable risk have been identified, documented and accounted for. As a result, it could indicate that critical activities may have been overlooked or marked as complete where in fact that may not be the case.

The report should be amended as follows:

In that meeting it was noted that Ernst & Young raised concerns about the methodology followed in TPOC.

Statement in Report:

In June 2000, PwC invited the CIBS Executive Steering Committee to a demonstration of the CIBS prototype. On the day of the demonstration, the prototype was not working. PwC did not subsequently demonstrate the working model to the Committee. However, the project manager and GM-Customer Services told the Committee they were satisfied with the TPOC.

Sydney Water's Response:

The TPOC Final Report, which post-dates this demonstration, states 'the demonstration application conclusively proved that all of the systems of CIBS integrate together and can be accessed from a single interface'.

The report should be amended as follows:

*In June 2000, PwC invited the CIBS Executive Steering Committee to a demonstration of the CIBS prototype. **The TPOC Final Report records that 'the demonstration application conclusively proved that all of the systems of CIBS integrate together and can be accessed from a single interface.***

Sydney Water did not effectively follow up and address recommendations from a 'Health Check' review

Sydney Water denies that the assertions made are accurate or based upon provable facts.

Sydney Water does not respond in detail to the assertions made in the paragraphs of the report that deal with this key finding. This is because the report raises issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

Sydney Water did not adequately disclose the status of CIBS in its 2002 Annual Report

Statement in Report:

Sydney Water decided to make the following comment in its 2002 Annual Report:

The main CIBS solution involving the core billing engine and interfaces is, at September 2002, due to be implemented during the second half of 2002-03.

Sydney Water's Response:

The Audit Office provided informal comment on the draft 2002 Annual Report, including the detail provided on CIBS, on 24 September 2002. As a result, Sydney Water amended the draft Annual Report to include the following statement:

Delivery of the main CIBS solution will be significantly later than originally planned and has incurred additional costs (page 11).

The Audit Office reviewed the final version of the 2002 Annual Report on 28 October 2002 and provided further comment on the detail provided on CIBS. The Audit Office's comments were considered by Sydney Water, but in view of the anticipated litigation and the fact that the 2002 Annual Report related to the previous financial year, Sydney Water did not make any further amendments to the Annual Report. The Audit Office advised that it was satisfied with the information in the report and noted that the discussion on CIBS limited comment to September 2002 and there was a public announcement in October 2002.

The sentence should be amended as follows:

Sydney Water made the following comment in its 2002 Annual Report:

Delivery of the main CIBS solution will be significantly later than originally planned and has incurred additional costs.

The Audit Office reviewed the final version of the 2002 Annual Report on 28 October 2002 and provided further comment on the detail provided on CIBS. The Audit Office's comments were considered by Sydney Water, but in view of the anticipated litigation and the fact that the 2002 Annual Report related to the previous financial year, Sydney Water did not make any further amendments to the Annual Report. The Audit Office advised that it was satisfied with the information in the report.

PROJECT SPECIFICATION; INTERFACE WITH USERS; AND PROJECT MANAGEMENT

Project planning and specifications were inadequate, contributing to many change requests and significant additional costs and delays

Sydney Water denies that the assertions made are accurate or based upon provable facts. With the exception of the comments made below, Sydney Water does not respond in detail to the assertions made in the paragraphs of the report that deal with this key finding. This is because the report raises issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

Statement in Report:

The DMR Report noted that the CSD business strategies were well known amongst the CSD senior management, but were not documented and did not appear to be correctly communicated to the project team.

Sydney Water Response:

The DMR report actually states:

*The Business is also concerned that Release 3 CIBS functionality will not reflect current business strategies. These strategies seem to be well known amongst CSD senior management but they are not documented and do not appear to have filtered through to the process owners, **even though they have been communicated to the CIBS Project Manager through membership of the CSD leadership team.***

The report should be amended as follows:

*The DMR Report noted that the CSD business strategies seem to be well known amongst CSD senior management but they are not documented and do not appear to have filtered through to the process owners, **even though they have been communicated to the CIBS Project Manager through membership of the CSD leadership team.***

Statement in Report:

The project was originally intended to produce a customer focus solution.

Sydney Water Response:

Page 10, paragraph 1.3.1 of the Request for Tender issued in March 1999 states:

Sydney Water is seeking flexible innovative solutions to improve its capabilities to meet new challenges and the requirements of customers, shareholders and regulators.

This focus did not change during the project.

The sentence should be amended as follows:

The project was to produce a solution to meet the requirements of customers, shareholders and regulators in a statutory property billing liability environment.

Statement in Report:

Although CSD business managers agreed to a 'customer focus' solution and agreed to ...many CRs from the business effectively resulted in a reversion to a 'property' functionality.

Sydney Water Response:

The statement about a 'customer focused solution' reverting to 'property functionality' is misleading as it implies that CSD business managers made a decision not to change business processes.

Some 'property functionality' was always required. For example, the Sydney Water Act (1994) requires Sydney Water to levy charges on a customer's property (sections 55 and 61) and to issue certificates of outstanding charges against a property (section 66). The project plan did not include any plan or strategy to change these legislative requirements.

There should be no issue of a 'reversion' to a property functionality. Whilst the solution was to produce a customer focus, it was also to have property functionalities. These requirements are not mutually exclusive.

This sentence should be deleted from the report. Alternatively, the word at the beginning of the sentence 'Although' and the words 'many CRs from the business...in the project' should be deleted from the report.

Sydney Water Response:

A new dot point should be added to refer to the type of change requests that were driven by regulatory changes. For example, when Sydney Water's Customer Contract was reviewed in late 2001 and implemented in April 2002, there were substantial changes to the way rebates were given to customers who experienced service problems. IPART pricing determinations also initiated changes, not just to prices but also to algorithms and pricing policies built into the system. This was especially the case with trade waste pricing.

Statement in Report:

The DMR Report also noted Sydney Water's lack of involvement with, and lack of confidence in the PwC planning process.

Sydney Water's Response:

The DMR report refers to PwC's failure to involve Sydney Water in the planning process. This sentence ought to be amended as follows:

The DMR report noted PwC's failure to involve Sydney Water in the planning process.

The Business Case supporting CIBS was not updated for substantial changes in costs and benefits as the project progressed

Sydney Water denies that the assertions made are accurate or based upon provable facts. With the exception of the comments made below, Sydney Water does not respond in detail to the assertions made in the paragraphs of the report that deal with this key finding. This is because the report raises issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

Statement in Report:

The CIBS project does not appear to have been supported by a robust business case. We have not been able to ascertain that the version of the business case provided to us had been approved by the Board.

Sydney Water's Response:

On 17 November 1999, the Board was provided with a paper prepared by the project sponsor detailing the business case, supported by an oral and visual presentation by the project manager on the business case. Approval in principle was given by the Board on that date subject to certain further investigations. The results of these investigations were addressed in subsequent papers to the Board before final approval was given in March 2000.

This business case included detailed financial analyses (including an analysis by an independent consultant engaged by Sydney Water) and benefits analyses.

For these reasons, the assertion made in the report is incorrect. This paragraph should be deleted.

Statement in Report:

The original business case does not appear to have been formally revised and updated despite a number of prompts:

in March 2001, the General Manager, Customer Services acknowledged the need to revisit the business case following the DMR findings. This was not done;

Sydney Water Response:

The General Manager, Customer Services in March 2001 is no longer with SWC. It is also not evident how or where the General Manager 'acknowledged' the need to revisit the business case or why this was not done.

This point needs to be amended as follows:

In March 2001, the **then** General Manager...

Statement in Report:

Board members and senior executives tended to the view that it was inevitable that within the public sector, projects of this size and complexity would go over budget and be delayed.

Sydney Water Response:

This assertion is not based on any interview with at least current Board members and senior executives. It should be deleted from the draft report and be substituted with the following:

Sydney Water's Chairman expressed the view to the effect that there is a history in both public and private sectors that projects of this type, size and complexity had gone over budget and had been delayed.

The above view does not support the assertion in the draft report about CIBS.

Statement in Report:

We believe this was also a contributing factor for the business case not being updated.

Sydney Water Response:

Only factual matters should be recorded in the report. For this reason and the reasons set out above, this sentence ought to be deleted.

The project team lacked certain skills to do the job

Sydney Water denies that the assertions made are accurate or based upon provable facts. With the exception of inaccuracies based upon documentary material, Sydney Water does not respond in detail to the assertions made in the paragraphs of the report that deal with this key finding. This is because the report raises issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

Statement in Report:

Sydney Water's project team, and its composition, was deficient in certain areas, as follows:

- The DMR Report noted that there was a lack of IT experience within the Sydney Water project team. Project management lacked IT experience in large, fixed price IT contracts and relied on PwC project management for direction and leadership. In addition, there appeared to be a lack of adequate project support to overworked Sydney Water project managers.

Sydney Water's Response:

In the DMR Report, the lack of experience is limited to experience in large fixed price IT contracts. This was the primary purpose of engaging PwC which represented that it had that expertise. The DMR Report does address the issue of a lack of adequate project support. However, as is clearly stated in the DMR Report, this is an issue as to the overworking of the Sydney Water project managers and does not support any assertion of lack of skill.

The report should be amended as follows:

In relation to Sydney Water's project team:

The DMR Report noted that Sydney Water's project managers lack experience in conducting a large, fixed price IT contract and relied on PwC project management for direction and leadership.

Statement in Report:

When the project team was formed in 1999 the members had minimal IT experience and a lack of large, complex project management experience.

Sydney Water's Response:

The DMR Report limited its comments in relation to lack of experience to that with a large fixed price IT contract. This ought to be accurately recorded in the report. Again, this was the basis for engaging PwC.

The report should be amended as follows:

The members of the project team had a lack of experience in conducting a large fixed price IT contract.

Statement in Report:

The DMR report in February 2001 recommended that Sydney Water use 'an experienced contract project manager'.

Sydney Water's Response:

The DMR Report recommends (at page 29) that:

SWC should consider the use of an experienced contract manager to manage the day to day relationship with the contractor, PwC, and to advise, coach and assist the existing SWC Project Managers. This role should be filled on a full-time basis initially, but it may revert to a part-time basis or on-call basis once SWC Management feel that the skills and capabilities of their Project Management team are sufficient to complete the project.

This sentence should be deleted and replaced with the actual recommendation contained in the DMR Report.

Sydney Water recognised that it needed a business improvement process, but during the project it reverted to only implementing a computer system

Sydney Water denies that the assertions made are accurate or based upon provable facts. With the exception of inaccuracies based upon documentary material, Sydney Water does not respond in detail to the assertions made in the paragraphs of the report that deal with this key finding. This is because the report raises issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC. Sydney Water denies that the assertions made are accurate or based upon provable facts.

Statement in Report:

The project was originally conceived to produce a 'customer focus' solution

Sydney Water Response:

Page 10 of the Request for Tender (paragraph 1.3.1) states:

Sydney Water is seeking flexible innovative solutions to improve its capabilities to meet new challenges and the requirements of customers, shareholders and regulators

The sentence should be amended as follows:

The project was to produce a solution to meet the requirements of customers, shareholders and regulators in a statutory billing liability environment

Sydney Water repeats the comments made in relation to the draft report. For the same reasons, the last two sentences of this paragraph should be deleted (ie from the sentence beginning 'However, many of the CRs... 'to the sentence ending' ...late in the project'.

There was poor communication between the project team and Customer Services Division (CSD). This greatly weakened the project

Sydney Water denies that the assertions made are accurate or based upon provable facts. With the exception of inaccuracies based upon documentary material, Sydney Water does not respond in detail to the assertions made in the paragraphs of the report that deal with this key finding. This is because the report raises issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

Statement in Report:

Sydney Water believed that the CIBS project operated in isolation from the CSD business. This was mentioned in the DMR Report.

Sydney Water Response:

The DMR report does not state that the CIBS project operated 'in isolation from the CSD business'. The DMR report states that:

...there has been poor communication between the CSD business managers and the project, in the past' (p 10, para 6);

but at the time of its report:

The general working relationship between the project team process owners and the Business works well.

The report should be amended to accurately record what is stated in the DMR report.

Statement in Report:

... the CSD business strategies were well known amongst CSD senior management but were not documented and did not appear to be correctly communicated to the project team. There was concern that the R3 CIBS functionality would not reflect CSD business strategies.

Sydney Water Response:

The DMR report actually states:

*The Business is also concerned that Release 3 CIBS functionality will not reflect current business strategies. These strategies seem to be well known amongst CSD senior management but they are not documented and do not appear to have filtered through to the process owners, **even though they have been communicated to the CIBS Project Manager through membership of the CSD leadership team.***

The report should be amended to accurately record what is stated in the DMR report.

The project was approved without a corporate Information Technology Strategy. Once Sydney Water developed this strategy, it was found that the CIBS computer architecture was not compatible.

Sydney Water denies that the assertions made are accurate or based upon facts. With the exception of inaccuracies based upon documentary material, Sydney Water does not respond in detail to the assertions made in the paragraphs of the report that deal with this key finding. This is because the report raises issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

Statement in Report:

When the Board approved the project in February 2000, it did so without a Sydney Water Group IT architecture framework in place. When the IT architecture framework was completed, Sydney Water IT reviewed CIBS' compliance with this framework and it found that it failed 19 out of 20 requirements.

Sydney Water Response:

The Managing Director's report to the Board on 11 April 2001 states that 'the Sydney Water IT strategy was last considered by the Board at its planning workshop of April 2000. ... the importance of aligning the CIBS project with the IT strategy was recognised early in the project. Sydney Water IT has been working with the CIBS project team to ensure that, as far as possible, the CIBS system is compatible with our defined enterprise architecture...'

The DMR report (at page 68) questioned the evaluation criteria used in the CIBS Architecture review prepared in October 2000.

The report should be amended as follows:

The Board approved the project in February before the group architecture was finalised. An architecture review prepared in October 2000 found that the IT architecture framework failed 19 out of the 20 requirements. The DMR report questioned the evaluation criteria used in this review. Nonetheless, Sydney Water IT worked with the CIBS project team to ensure that, as far as possible, the CIBS system was compatible with its IT architecture framework

An integrated project plan was not maintained during the project

Sydney Water denies that the assertions made are accurate or based upon facts. Sydney Water does not respond in detail to the assertions made in the paragraphs of the report that deal with this key finding. This is because the report raises issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

Testing was neither timely nor comprehensive

Sydney Water denies that the assertions made are accurate or based upon facts. Sydney Water does not respond in detail to the assertions made in the paragraphs of the report that deal with this key finding. This is because the report raises issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

There was a belief in Sydney Water that projects of this nature and complexity would inevitably go over budget and be delayed

Statement in Report:

In discussion with Board members and Sydney Water Management, we gained a strong impression ...

Sydney Water Response:

*Sydney Water repeats the comments made in relation to page 13, paragraph 4 (re. 'Board members...') of the draft report. Further, the Auditor-General notes that this is his **impression** only. The report should only state facts. This sentence should be deleted.*

We were unable to fully assess the selection of the contractor because Sydney Water could not provide all relevant documentation. However, it appears that Sydney Water performed an extensive evaluation and selection process.

Statement in Report:

Sydney Water was unable to provide us with its tender evaluation documentation, and a gap analysis between the Request for Tender, PwC's tender response and the final contract.

Sydney Water Response:

This was a time when actions needed to be taken in relation to potential litigation. There were inherent pressures on Sydney Water and its officers. This compromised Sydney Water's capacity, despite best efforts, to respond to the Audit Office's inquiries.

The report should acknowledge that whilst dealing with the Auditor-General's review, Sydney Water has been managing an intensive and complex litigation review. This has impacted upon the ready access to and management of records for the CIBS project.

Contract administration was deficient. One variation to the contract transferred significant responsibilities and risks from PwC back to Sydney Water

Statement in Report:

The DMR Report in February 2001 recommended that:

- *Sydney Water should replace its project manager.*

Sydney Water Response:

The DMR Report does not make this recommendation. The Report does recommend (at page 29) that:

SWC should consider the use of an experienced contract manager to manage the day to day relationship with the contractor, PwC, and to advise, coach and assist the existing SWC Project Managers. This role should be filled on a full-time basis initially, but it may revert to a part-time basis or on-call basis once SWC Management feel that the skills and capabilities of their Project Management team are sufficient to complete the project.

Sydney Water acted upon DMR's recommendation and retained DMR to provide the recommended services to Sydney Water. The status of this recommendation as at 21 May 2001 was noted as 'completed'.

The words, 'Sydney Water should . . . manager' should be deleted and replaced with the actual recommendations contained in the DMR Report. Sydney Water's implementation of this recommendation should be noted. A similar amendment should be made to page 20, paragraph 4 of the report.

Statement in Report:

PwC was continually allowed to report in a manner...

Sydney Water's Response:

From at least March 2002, PwC was requested to provide clear and complete reports on the status of the project.

This sentence should be amended as follows:

PwC reported in a manner...

Statement in Report:

The project manager approved variation #8 ... with PwC was terminated

Sydney Water's response:

The Deed was executed on behalf of Sydney Water Corporation by Denise Margaret Dawson under Substitution Under Power of Attorney Deed dated 20 September 2001 and registered Book 4328 No. 985 (the "sub-power of attorney").

At the time of executing the Deed, the sub-power of attorney conferred powers on Denise Dawson to, amongst other things, sign, seal and deliver deeds on behalf of Sydney Water Corporation subject to any such exercise being within her delegation.

At the time of executing the Deed, under the Sydney Water Delegations Manual, in her capacity as General Manager of Customer Services Division, Denise Dawson held an effective delegation to commit Sydney Water for an amount of up to \$5 Million. The amount of settlement money payable by Sydney Water under the Deed was within Ms. Dawson's delegation.

In addition, Ms. Dawson executed the Deed with the prior approval of the then Managing Director and also on advice from SW Legal.

This point should be deleted from the report.

The contract with PwC was weaker than the request for tender in some important areas

Sydney Water denies that the assertions made are accurate or based upon provable facts. With the exception of inaccuracies based upon documentary material, Sydney Water does not respond in detail to the assertions made in the paragraphs of the report that deal with this key finding. This is because the report raises issues that are likely to be in dispute in the potential litigation between Sydney Water and PwC.

Statement in Report:

Some contract terms were less favourable than those originally in the tender. They reduced PwC's responsibility and potential liability, for example...

- *The original warranty period was halved.*

Sydney Water's Response:

Clause 21 of the contract (see also the definition of Warranty Period in clause 1.1) provides that the warranty period for the main CIBS Implementation Phase is a period between 6 and 9 months, to run after an additional warranty period of 90 days, which was introduced for all phases. It is not correct to state that the original warranty period was halved. This point should be deleted or amended.

Statement in Report:

The contract did not include a requirement for the contractor to reimburse costs incurred by Sydney Water where the contractor failed to correct a breach of warranty.

Sydney Water's Response:

Clause 39.5 of the contract expressly provides that, subject to the contract, PwC is liable for 'direct damages' suffered or incurred by Sydney Water as a result of a material breach by PwC, to the extent that the damage is caused or contributed to by PwC, its employees, agents or subcontractors. This liability is capped (see clause 39.7). There is also a time restriction (see clause 39.1). However, the effect of the clause is equivalent to the Request for Tender (RFT) requirements.

This point should be deleted.

Statement in Report:

The clause in the request for tender, relating to the contractor ensuring timely completion of system implementation works, was not included in the contract.

Sydney Water's Response:

This is incorrect. Clause 21.1(b) of the contract provides that:

The Contractor shall undertake the System Implementation Works in a competent, proper, efficient and timely manner in accordance with the Master Project Plan and Specification

This point should be deleted.

COST ESTIMATION

The final cost forecast for CIBS was \$135.1 million, compared to the original budget of \$38.2 million.

Statement in Report:

At the time of terminating CIBS, the estimated cost-to-completion of the project was in the order of \$114.5 million. We believe this was understated by \$20.6 million...Reasons for variance include:

- *\$14.9 million of costs not recorded as identified by Sydney Water.*

Sydney Water Response:

This amount of \$14.9 million is broken down as \$4.3 million for financing costs, \$5.9 million of labour costs and 'breakthrough' program costs of \$4.7 million. It is correct that the \$4.3 million of financing costs was not included in the original submission. However, once actual borrowing costs were established, an estimate based on similar values was built into all future budget projections, and was included in the estimated costs to completion.

The correct amount of labour costs is \$4.9 million, not \$5.9 million. These costs relate to staff working on the CIBS project, but located outside the CIBS department. It is correct that the original business case did not include these costs. However, that was corrected and these costs were included in the estimated costs to completion.

The costs of the 'breakthrough' program of \$4.7 million were not finalised until the 2002 financial year. At the time that the Board approved the acquire stage of the project with a budget of \$38.2 million, it did not have to include the previously sunk costs relating to the 'breakthrough' program. Subsequently, costs including previous sunk costs were reported. These costs were included in the estimated costs to completion.

The statement should be amended as follows:

\$13.9 million of costs were not recorded in the original budget... \$4.9 million of labour costs... \$4.7 million). These costs were included in reports to the Board in August 2001 and March 2002.

Statement in Report:

\$20.6 million of costs not recorded to the project as identified by us

Sydney Water Response:

It is incorrect to state that the estimated cost-to-completion was understated by \$20.6 million. The variance is due to the following:

\$13.8m related to the acquisition of hardware and software for a Sydney Water wide IT infrastructure upgrade that served a number of applications, including CIBS. These costs were to be capitalised as a separate asset with a different economic life from the systems they served. The only IT cost not included in any capital project was the \$0.4m for the lease cost of PCs used on the project. By Sydney Water Policy, hardware is always treated separately, as all new systems require some new hardware.

\$5.1m relates to the use of \$45 per labour hour for Capitalisation. Until 2002, General Managers had authority to determine the capitalisation methodology used for their projects within a broad policy framework. At the time of the Define/Design phase of the project a full transfer pricing policy was in place in Sydney Water to capture direct labour costs associated with the project. Once the transfer price policy fully ceased the labour rate of \$45 continued, as it was not considered material enough to change so close to the expected 'go live' date. This was not "because of budget pressures" as suggested in the report. Subsequent application of a uniform multiplier to labour costs to recover local and corporate overheads was also not considered necessary due to the closeness of the expected "go live" date. Furthermore, this uniform policy, introduced by Corporate Finance, was not backdated as again it was considered too close to the 'go live' date and, in the context of a \$0.5 billion per annum capital program, immaterial. This also reflected a conservative approach to capitalising labour costs within the corporation.

This point should be deleted. Further, the sentence commencing 'We believe this was...' should also be deleted.

Statement in Report:

Graph titled 'Accumulated Projected Costs for CIBS.

Sydney Water Response:

If this graph is based on the figures referred to on page 22, reference must be had to the comments above.

RISK MANAGEMENT

Risk management was not effective at the corporate and project levels

Statement in Report:

Risk management was not consistently applied through the life of the CIBS project.

Sydney Water Response:

As noted in the draft report reviews that were undertaken throughout the life of the project include: Internal Audit Plan (Draft) July 2000, Ernst & Young review of the TPOC in December 2000, DMR Architecture review Mar 2001, DMR Health Check report January 2001 with follow up reviews in May 2001 and mid 2002, DMR acceptance testing review in January 2002 and PwC's own audits in 2000 and 2002.

On a regular basis the key project risks were graphically presented as a Project Risk Matrix and this was regularly presented and discussed at the Executive Steering Committee. A Risk Mitigation Plan was developed for all of the project Risks identified as significant, critical and had an agreed level of likeliness to occur. Symptoms or early indicators of the risk occurring were identified as well as actions to prevent/contain it and someone to be responsible. Supplementing the risk register was an Issues Management database which in many cases reflects the realisation of a previously identified risk. The number and type of issues was monitored and reported at all project team meetings.

In addition to the risks identified internally by the project team and key stakeholders, DMR were engaged to identify risks and recommend actions to mitigate them. All of the recommendations in the initial DMR Healthcheck were tabled into a set of actions which were monitored both by internal audit on a regular basis and DMR themselves.

This sentence should be deleted.

Risks and their management were again reviewed by Alan Sebesfi Project Director, Sydney Water in conjunction with Paul Hickey Project Manager PwC from March 2002 and the outcomes of their assessment at the time were presented to the Operational and Executive Steering committees in graphical form. These risks at that time were discussed in some detail with both committees.

Statement in report:

However, the potential failure of CIBS, delays in the project, and increased costs were not mentioned.

Sydney Water's response:

Sydney Water's 2002/03 Statement of Corporate Intent (SCI) was approved by its Board on 18 September 2002 and then delivered to its shareholders on 27 September 2002.

At the time the SCI was delivered to the shareholders it would have been speculative and inconsistent with its purpose to identify any contingent liability arising from CIBS as then expectations were that the project would be completed. Furthermore, at that time the Sydney Water risk matrix did identify the key risk of CIBS implementation failure.

As with past practice of all State owned corporations (SOCs), following delivery, the SCI is not amended for significant emerging issues. Significant variations against SCI targets, including the decision to terminate CIBS, have been identified in the subsequent quarterly and half yearly reports to shareholders

This sentence should be deleted.

The culture of Sydney Water suggests a belief that the outsourcing of major projects will effectively transfer all risks to the contractor

Statement in Report:

Symptoms of this culture were that Sydney Water gave a low priority to updating its risk management processes, and did not pursue DMR recommendations relating to risks with the vigour that was necessary.

Sydney Water Response:

CSD actively managed its risk profile by embedding specialist resources with the CIBS Project. DMR were engaged following their report produced in February 2001. The appointment of a specialist Project Director in February 2002 and engagement of Accenture in June 2002 were all actions designed to manage risk.

The sentence should be deleted.

Our review of CIBS was restricted in some areas because Sydney Water was unable to provide us with relevant documentation. A poor records management system exists

Statement in Report:

We were unable to obtain some relevant documentation, including:

- *final business case;*
- *tendering processes;*
- *net present value calculations for the project.*

Sydney Water Response:

This was a time when actions needed to be taken in relation to potential litigation. There were inherent pressures on Sydney Water and its officers. This compromised Sydney Water's capacity, despite best efforts, to respond to the Audit Office's inquiries.

The report should acknowledge that whilst dealing with the Auditor-General's review, Sydney Water has been managing an intensive and complex litigation review. This has impacted upon the ready access to and management of records for the CIBS project.

CHRONOLOGY

A number of matters are not accurately stated in the chronology:

- 1 *It is noted there are many matters of opinion or editorial comment not necessarily 'facts' included in the chronology:*
- 2 *For completeness the following additional events should be mentioned.*

Chronology Pages 29 - 39:

12 July, 2002 - Extraordinary CIBS Executive Steering Committee Meeting - a workshop including additional resources beyond the regular participants in the meeting (details provided to A-G in both the CIBS Executive Communications Chronology v.1.0 and also the supporting documents from that meeting)

PRICEWATERHOUSECOOPERS' RESPONSE



Mr Lee White
Assistant Auditor-General
Auditor-General's Office
Level 11
234 Sussex Street
Sydney NSW 2000

PricewaterhouseCoopers
ABN 52 780 433 757

Darling Park Tower 2
201 Sussex Street
GPO BOX 2650
SYDNEY NSW 1171
DX 77 Sydney
Australia
www.pwcglobal.com/au
Telephone +61 2 8266 0000
Facsimile +61 2 8266 9999
Direct Phone (02) 8266 5114
Direct Fax (02) 8286 7501

28 March 2003

Dear Sir

CIBS Review

We refer to your discussion with Matthew King, formerly of PwC and now with IBM Global Services, on 6 March 2003 in relation to the above review and thank you for the opportunity for Matthew to comment upon those aspects of your draft report which refer to PricewaterhouseCoopers ("PwC") and its role in Sydney Water's CIBS project.

Mindful of the independence of the audit process, Matthew nevertheless believes that there are some factual matters which he should clarify in order to ensure that the factual content of the report presents an accurate and complete picture of events. Briefly, those points are set out below. At the outset, however, we should note that we consider it incorrect to describe the CIBS project as a "failed" project in circumstances where it was unilaterally brought to an end by Sydney Water. It would in our view more accurately be referred to as a "cancelled" project. As Matthew discussed with you on 6 March 2003, it is PwC's firm belief that at the time the contract was cancelled by Sydney Water it was deliverable.

Factual Issues

- You have noted that in June 2002, on the day it was proposed to demonstrate the CIBS prototype to the CIBS Executive Steering Committee the prototype was not working. That is incorrect. There was a working prototype in June 2002. PwC was unable to demonstrate that working prototype to the CIBS Executive Steering Committee on that date because the conference room Sydney Water had arranged for the demonstration did not have the IT structure (in particular the LAN connection) to enable the prototype to operate.
- It is incorrect to assert that PwC did not assess the complexity of integrating trade waste billing during the analysis phase (which is what we understand to be referred to by your reference to the planning stage). It did, and the decision was made to include the trade waste billing components of CIBS in release 3. Sydney Water signed off on its specification in relation to Trade Waste billing at the end of the analysis phase. What had a critical impact on the project was the decision by Sydney Water on a number of occasions to make significant changes subsequently to its specifications in that regard.

- Various observations are also made in the draft report as to the PwC project team's skills. For the reasons advised at the meeting on 6 March 2003 it is inaccurate to rely upon the extracts quoted from comments collected from the April 2001 QA review as suggesting that there were any tested or concluded findings in relation to the experience of the PwC release 3 team or the level at which the PwC project management team was working. PwC has never accepted that its team was inexperienced. As Matthew King confirmed, PwC is confident in the experience of the people it had on the team, many of whom at a senior level had been involved from the time of the tender and Gap Analysis throughout the Project.
- A number of comments are made as to the respects in which it is suggested that PwC's project management of CIBS could have been improved. They appear to be based on some factual errors. For example;
 - (i) Sydney Water advised PwC that it had engaged experts not to assist its knowledge on understanding an appropriate testing strategy but to assist it to comply with the obligations Sydney Water had accepted for UAT testing (and which it acknowledged at the time it had failed to do). One of the experts, Accenture, expressly advised PwC that its role was not to reorganise the testing strategy accepted by Sydney Water as part of the signed off deliverables.
 - (ii) It is also factually inaccurate to suggest that planning of the project occurred without input from Sydney Water. During 2001 alone there were numerous workshops held with Sydney Water representatives in order to produce an integrated project plan which was signed off by Sydney Water.
 - (iii) Insofar as criticism is made of the status of the overall project plan, this reflects in our view a difference of opinion between Sydney Water and PwC as to the level of detail appropriate to be included in the overall master plan as opposed to the individual work plans. It is not the case to suggest there was not throughout the project an overall plan (albeit that the plan was one that was required to be updated on numerous occasions to accommodate change requests from Sydney Water) or up to date and accurate individual working plans.
 - (iv) The suggestion that PwC should have gained a better understanding of Sydney Water's culture is contradicted by the very instructions given to PwC at the time it tendered for and entered into a contract for the CIBS project.
- It appears that the graph reproduced on page 7 of the draft report is incorrect. There were not that number of change requests/problem reports **per month** over the course of the CIBS project. We believe that the graph may have been intended to represent the cumulative number of opened (and not closed) change requests/problem reports over the period.

We would be pleased to meet with you if necessary to discuss or amplify any of the above.

Thank you again for the opportunity of commenting on the report and drawing attention to the above matters in which we believe the report does not present an accurate or complete picture of the facts. The fact that we have not sought to address any issues of judgment in the draft response should not be taken as acceptance thereof.

Yours faithfully

Ross Rydge
Legal Counsel
Office of General Counsel

MR ALEX WALKER'S RESPONSE

31 March 2003

Mr Tony Whitfield
Deputy Auditor-General
The Audit Office of New South Wales
GPO Box 12
SYDNEY NSW 2001

Dear Mr Whitfield

I have received from Lee White, Assistant-Auditor General, an electronic copy of his draft report on aspects of Sydney Water's failed Customer Information and Billing System (CIBS) project. The report was commissioned by NSW Treasurer, Michael Egan on 18 October 2002, the day Sydney Water's Chairman and I, its then Managing Director, informed him that the project could not continue because the Board had lost confidence in the ability of its contractor, PricewaterhouseCoopers Consulting (PwC), to deliver a satisfactory system, at an acceptable cost and in a reasonable timeframe. To that date the project had incurred costs of around \$60 million, more than half of which had been paid to PwC.

The terms of reference for the audit of the project were to be negotiated between you and NSW Treasury but were not limited by the Treasurer. In plain language, as the principal shareholder of the Sydney Water Corporation on behalf of the Government, he wanted you to have a good look at the project and to report on the causes of the possible losses incurred.

Mr White has asked me to comment only on the facts but I am compelled to comment more widely for several reasons as follows.

(i) I understand Sydney Water's position to be, and it is certainly mine, that the principal cause of the project's failure is that the contractor, PwC did not meet its obligations under the contract. Some form of legal redress is likely to be sought. It is difficult, if not impossible in these circumstances for you to be expected to produce a complete assessment, without being advised on the legal rights of the parties.

(ii) There are many allegations or implications of fault or failure in the report. Much of it is based on errors of fact and can be demonstrated to be so by rigorous analysis of the records. Not having all the records, I will leave that to Sydney Water. However on points of significance to me, I will include supporting references or quotations.

(iii) I resigned as Managing Director/CEO of Sydney Water on 18 November 2002 owing to ill health. My resignation was accepted by the Board on 20 November. This was not a consequence of the CIBS project and it would not be valid to link it to my resignation.

As Managing Director I accepted accountability for all of the management of Sydney Water Corporation including CIBS, but in doing so I was not admitting to personal fault or failure. I strongly object to implications of failure on my part to exercise due diligence in relation to management of the CIBS project or to support good governance by the Board of which I was a member. I believe that the Board was fully informed on all issues and was extremely diligent in addressing a very complex and challenging project.

At the personal level, I am proud of my contribution to Sydney Water during my four years as Managing Director. Having had a long stress-free break from work I may well pursue part-time directorships, advisory or voluntary work. My professional reputation therefore continues to be important and I intend to defend it accordingly against unfounded and ill-conceived criticism.

(iv) The approach taken to the review of CIBS fails to prescribe any standards or criteria which would provide a basis for objective appraisal of Sydney Water's approach or performance, but relies upon the benefit of hindsight. Having had personal experience in IT management, and my share of successful and disappointing results in delivering large-scale commercial applications, I know that this is not easy. But the alternative is the sort of selectivity or arbitrary criticism evident in the draft report.

The CIBS project was exemplary in many aspects as follows.

* The project was business driven and linked to corporate and divisional strategies and objectives eg see minutes of Board review June 2002.

* The project commenced with a long, detailed planning phase with emphasis on business process re-engineering. It was intended to enable long-term changes in approach to customer services throughout Sydney Water.

* The project risks were documented and integrated with corporate risk management. I showed a copy of the project risk matrix to Messrs White and Kheir when I was interviewed by them on 7 March 2003.

* Although led by the Customer Services Division, where it had most impact, the project involved staff of all divisions, from executive management to operative level.

* Contrary to the draft report, Sydney Water's Internal Auditor was heavily involved in the development phases of the project and was personally encouraged by me to take a proactive role and to inform me direct of any concerns or issues where he needed support.

* An independent review of the project by DMR & Associates was commissioned by the General Manager, Customer Services, with my support, at the beginning of 2001, a critical point in the project. Their report was considered by the Board's Audit Committee and was the subject of spirited debate. Representatives of the Auditor-General were present on these occasions. All but a couple of DMR's many recommendations were fully implemented. Those that were not implemented in full were the subject of follow-up by the Internal Auditor and a further report by the project manager to me in July 2001.

* The selection process was inclusive and exhaustive. It concentrated on best fit of business processes.

* Proven technology and suppliers were selected.

The core billing package had been developed by Severn Trent Systems (STS), a subsidiary of Severn Trent, a major British water utility. It had been chosen by one large Australian energy utility and subsequently by a second. In addition to checks conducted by the project team, I personally visited Severn Trent and one Victorian-based utility. Arrangements were also in hand to establish a "user group" to ensure that lessons were shared.

The prime contractor was not STS, but PwC. This was intended to ensure that the emphasis was on business outcomes, not just software.

In my opinion, Sydney Water was entitled to rely on the expertise and capability of its suppliers to deliver solutions required under the contract.

* Capable people and clear accountability.

From executive management down, the best available people were recruited or assigned from other areas, even on occasions to the detriment of ongoing business activities. Selection of the General Manager, Customer Services in 1999 and his replacement in 2001 involved the Chairman and me, as Managing Director, and was substantially on the basis of the applicant's ability to lead the development and implementation of the CIBS project. Relevant targets and measures were included in performance agreements.

* No shortcuts were taken in testing or training.

Commitment to a successful implementation and sustainable business outcomes was demonstrated by successive management and Board decisions to defer implementation and to commit additional resources, in particular to user acceptance testing.

*Careful management of costs.

Again contrary to the thrust of the draft report, it is my experience that costs were controlled responsibly. I was Chairman of the Steering Committee after the resignation of Peter Mayhook from the position of General Manager, Customer Services in April 2001. The Committee received documented reports on expenditure against budget at every meeting. To my knowledge the project had not exceeded its Board-approved budget up to the date of its termination.

Talk of further cost overruns is fanciful. Sydney Water was unable to obtain commitment to a firm completion date or final resource requirements from PwC. I was firmly of the view that costs resulting from further delays would have to be borne predominantly by PwC, but this remained a point of contention. While I cannot answer for the attitudes of all individuals, I personally reject the unattributed and unsubstantiated assertion that Sydney Water had embedded tolerance of cost overruns. It was made clear to me by the Board and passed on consistently to the Steering Committee that the project had to live within its means.

In 2002, the Audit Office of NSW conducted an audit and found no irregularities with payments under the contract.

Why then was the project unsuccessful?

Sydney Water's approach to the CIBS project would stand up well to objective scrutiny, but there were clearly weaknesses in execution by its contractors.

I have briefed Messrs White and Kheir on my opinions of the other causal factors, as I had earlier done for the Board, Minister Yeadon and Treasurer Egan. However, I am not in a position to do so now in writing because of the likely litigation over the contract.

Diligence in project and corporate governance

The draft report contains damaging criticism of me, as Managing Director and of the Board. These criticisms are not based on facts and are refuted by Sydney Water's records. I will deal with only the key elements here.

(i) Management reporting is alleged to have been irregular, incomplete, unclear and not timely. Yet minutes of Board meetings refer to numerous written papers, updates within the monthly Managing Director's report to the Board and presentations. CIBS also arose frequently in relation to other matters such as finance and employee reports. The allegation that there were undue gaps is simply not true.

It is especially puzzling that the report singles out the Board meeting of 20 March 2002. On that occasion important choices had to be made and were put to the Board - whether to continue with full scale implementation, proceed but with reduced functionality or disband the project. The written paper was only a summary but I made a full presentation, supported by the General Manager, Customer Services and the Project Director.

The minutes record:

....."Mr Walker provided a comprehensive chronological background of the CIBS project, outlining the project focus, contractual issues, project management controls around high risk areas, detailed planning for implementation and Board approvals to date."

(ii) It is stated in the draft report:

"The Chairman advised us that the first time she became aware that there was any significant doubt about delivery of outcomes from CIBS was at a briefing in October 2002" and.....*"it was after that meeting that she recommended that the Board terminate the project."*

These statements imply that management was misleading the Board until the last minute. This is incorrect. Minutes of various Board meetings throughout 2002 demonstrate that there was ongoing discussion about a whole range of problems. As a matter of logic, terminating the project was always an option. However that option had to be considered in the context of the desired objectives of the project and the investment to date. Terminating the project at any time would be the last and most difficult option.

The minutes of the March meeting refer to contractual disputes, potential additional costs, "delays and extensions to critical path activities in the areas of user acceptance testing and software delivery" as well as "a detailed review of the master project plan to confirm whether the September commissioning date is achievable or may require a further extension."

In the June minutes: "testing of the solution is on the project's critical path and delivery of some components of the CIBS solution into User Acceptance Testing (UAT) is still outstanding. These components need to be adequately tested before Sydney Water's go-live date and these will take longer to test than the time now available."

In July: "further testing will require deferral of the go-live date and additional funding".

In August: "The Board noted the update on the status of the CIBS project, in particular the commissioning date, user acceptance testing, business readiness, business simulation exercise, revised projected costs and commercial negotiations with PricewaterhouseCoopers."

The September minutes record a further extensive review and, based on the management update the Board requested legal advice on contractual obligations and options.

The only aspect of the project which took both management and the Board by surprise was the unacceptably high rate of errors in the software when it was belatedly delivered and full scale acceptance testing finally began. The extent and implications of these errors began to emerge in September when I informed the Board that, for the first time, I had grounds to doubt the quality of the delivered system and an expert review was commissioned. This was the final straw!

The expert assessment of the quality of the system, along with legal advice on contractual options, were the input to the October Board meeting when it was decided that the project could not continue.

It should be noted also that termination of the project was on the recommendation of management. The approach to be taken was put to a special meeting of the Board by the Chairman and me after we had received advice from a Senior Counsel.

(iii) Messrs White and Kheir assert that I had misled them and the Board members present at an Audit Committee meeting on 18 September 2002 into believing that all was well with the project. In this case I do not recall or have a note of what was said. Nor is there any such record in the minutes of the meeting. This was a meeting where there was discussion on a range of issues relating to signing of the annual accounts. Yet the Audit Office representatives did not challenge any of the submissions made to the meeting.

(iv) The report is critical of non-conformance with IT architecture. This reflects the organisational separation (in AWT) of Sydney Water's "internal" IT supplier which was detached from the project until it was integrated back into Sydney Water in July 2000. For some time there were points of technical difference between Sydney Water IT and the project team. These had been progressively overcome.

This deficiency should not be construed as a weakness at Board level. A broader IT Strategy had been approved by the Board and recognised the critical CIBS project.

(v) The foregoing material has illustrated that there was considerable interchange between the Board and management over the CIBS project. This was true from the outset when the proposed contract was put to three consecutive Board meetings and a sub-committee before it was approved.

In my opinion, criticism of the Board's involvement, interest or diligence in dealing with this project is ill-informed. On the contrary, the Board was consistently demanding and vigorous in its questioning of me and those who invariably attended in support.

***In summary,** I have attempted to set out in this letter my perspective on the CIBS project to the extent that I am able in the current circumstances. I question the approach that has been taken and refute the significant criticisms that have been made in the draft report and which are substantially based on hindsight.*

I have not colluded with Sydney Water in preparing this response but am confident that their more exhaustive comments will support my views.

Given the seriousness with which I view this matter I intend to copy this letter to the key stakeholders, the Chairman of Sydney Water and its principal shareholder, the NSW Treasurer.

I would be happy to meet with you or others to discuss these matters further. Please feel free to contact me.

Yours sincerely,

ALEX WALKER