

VICTORIA

Victorian
Auditor-General

Review of South East Water's Works Alliance Agreement

Ordered to be printed

VICTORIAN
GOVERNMENT PRINTER
May 2008

ISBN 1 921060 70 0

VAGO

Victorian Auditor-General's Office
Auditing in the Public Interest

The Hon. Robert Smith MLC
President
Legislative Council
Parliament House
Melbourne

The Hon. Jenny Lindell MP
Speaker
Legislative Assembly
Parliament House
Melbourne

Dear Presiding Officers

Under the provisions of section 16AB of the *Audit Act 1994*, I transmit my performance report on *Review of South East Water's Works Alliance Agreement*.

Yours faithfully



DDR PEARSON
Auditor-General

28 May 2008

Foreword

'Alliancing' is a relatively new, but increasingly used procurement strategy, whereby an 'owner' and 'commercial participants' establish a 'virtual organisation' to undertake works. In 2005, South East Water (SEW) entered into an alliance agreement with a consortium for operations and maintenance works, and for smaller capital works.

By entering into the alliance, SEW's primary intention was to drive costs down without compromising service levels. This has been achieved and the alliance is delivering savings compared with the previous 'schedule of rates' arrangements. It has also generated additional revenue for SEW, introduced new technologies benefiting SEW, and the water industry more generally, which has resulted in low staff turnover.

Alliancing should be approached with particular care. Several recent audits have emphasised the need for agencies to rigourously examine whether alliancing is the best procurement option; and if so, to approach all commercial aspects with the same rigour required of more conventional procurement processes.

The current audit found there was a lack of rigour applied in choosing alliancing as the preferred procurement strategy. SEW did not attempt to identify the best procurement option available to it. It did not adequately assess this alliance option against other procurement options and similarly, it did not consider other alliance models.

In the case of a 12-year alliance, such as SEW's, robust review mechanisms are important in terms of locking in benefits and promptly identifying and addressing issues as they arise. The audit found inadequacies in reviews of the alliance's commercial framework and concluded that a thorough review of the alliance is needed to assure SEW that its current form of alliance is its best procurement option.

The SEW experience demonstrates that alliancing can have significant benefits for public sector agencies, but as with all procurement strategies it must be robustly established, managed and reviewed.



DDR PEARSON
Auditor-General

28 May 2008

Contents

Foreword	v
1. Executive summary	1
1.1 Introduction.....	1
1.2 Findings.....	2
1.3 Recommendations	4
2. Background	7
2.1 About South East Water.....	7
2.2 About ‘us’ – Utility Services.....	8
2.3 Audit objectives and scope.....	11
3. Adequacy of preparation for the alliance.....	13
3.1 Were alternative procurement options considered?	14
3.2 Were South East Water’s objectives for the alliance clearly specified?	16
3.3 Were costs and benefits identified?	16
3.4 Were risks identified?	18
3.5 Was the business case for an alliance made?	19
4. Compliance with legislative and other requirements in establishing the alliance	21
4.1 Did South East Water comply with relevant legislation?	22
4.2 Was the alliance development process conducted with probity?	22
5. Achievement of objectives for the alliance	25
5.1 Introduction.....	26
5.2 Has the alliance reduced costs and maintained service levels?	26
5.3 Has the alliance increased external work?.....	34
5.4 Has the alliance introduced new technologies?	35
5.5 Has the alliance helped to retain staff?	36

Contents

6. Adequacy of alliance management and monitoring.....	39
6.1 Has South East Water retained an independent planning function?.....	41
6.2 Is reporting by the alliance comprehensive?.....	41
6.3 Has good performance been identified and rewarded?	42
6.4 Have alliance costs been identified and allocated?.....	45
6.5 Has South East Water adequately managed external works risks?	46
6.6 Has the alliance been reviewed?	48
Appendix A. Estimation of operations and maintenance costs savings.....	51
Appendix B. Key aspects of the agreement's commercial framework	53
Appendix C. Development of the target outturn cost for capital works	57
Appendix D. Estimation of capital works cost savings	59

1 Executive summary

1.1 Introduction

'Alliancing' is a relatively new, but increasingly used procurement strategy, whereby an 'owner' and 'commercial participants' establish a 'virtual organisation' to undertake works. Although originally used for complex, one-off and high-risk procurements, alliances are becoming increasingly common for maintenance activities.

Alliances typically reimburse the commercial participants' direct costs, pay a margin to cover their normal profit and corporate overheads, and share savings or extra costs on jobs, in a 50-50 split between the owner and the commercial participants.

Alliances commit all parties to avoid contract disputation and cost variations, by adopting what is described as a 'no-blame, no-disputes' culture.

In April 2005, following a three-stage process that assessed the merits of a number of companies and consortia as alliance partners, South East Water (SEW) entered into an alliance agreement with a consortium of two companies. This agreement is for a 12-year period and can be terminated without financial penalty after seven years. The alliance replaced schedule of rates¹ contracts with the same two companies. They were chosen as the commercial participants after a selection process, which took more than 12 months. Over the term, and based on 2006–07 activity levels and costs, the total value of works under the agreement will be about \$850 million in present value terms.

The alliance, which trades as 'us' – Utility Services:

- manages and carries out civil, mechanical, electrical and other works for the operation and maintenance of SEW's assets and infrastructure
- designs, constructs, installs and commissions smaller capital works for SEW
- undertakes maintenance and construction work for third parties on a commercial basis.

¹ A schedule of rates is a statement of the price that an entity will allow a contractor to charge for specific activities. SEW's schedule of rates with one consortium member included several hundred items.

The audit objectives were to assess the planning and management of the alliance agreement and to determine whether the alliance is achieving SEW's objectives and the expected benefits.

1.2 Findings

1.2.1 Procurement options

In March 2004, the SEW Board requested that management explore the establishment of an alliance. SEW had engaged in one capital works alliance in 2003 and considered the project a success. Consequently, it believed that alliancing was its best procurement option for operations and maintenance works and for smaller capital works.

SEW heeded a variety of expert advice when establishing its alliance. However, SEW did not rigorously assess the alliance option against other procurement options and did not consider other alliance models or develop a consolidated business case. SEW was, therefore, unable to demonstrate that it had identified the best procurement option available to it.

1.2.2 Alliance objectives

This audit estimated that SEW has paid:

- 6.4 per cent less for operations and maintenance work than it would have if the schedule of rates from 2005 continued
- 6.5 per cent less for a sample of capital works projects than it would have if the alliance had not existed. These savings are mainly the result of eliminating works variations, which traditionally result in cost increases.

On the basis of audit estimates, SEW's savings from the alliance represent a good commercial outcome for its customers and shareholders, compared with the previous schedule of rates approach. The estimated savings are evidence that alliance contracting is a viable procurement strategy for operations and maintenance services for government business enterprises.

Nevertheless, it is not clear whether SEW has achieved the best value-for-money outcome available from its alliance. It did not apply the same rigour in determining the commercial participant's margin as it applied to other aspects of the alliance development process. The other two metropolitan water retailers pay their operations and maintenance providers smaller margins and have shorter contract terms. The 'us' – Utility Services alliance agreement is for 12 years, and the capital works margin and the original base operations and maintenance works margin cannot be reviewed during that time.

‘us’ – Utility Services uses its commercial framework to assess monthly operations and maintenance performance and to adjust the margin paid to the consortium. While SEW adopted a rigorous process to determine the initial cost benchmarks for the alliance’s commercial framework, this framework became outdated when the requirement for its comprehensive annual review was not met. Consequently, it became increasingly difficult for the consortium to meet several of its performance targets.

A significant percentage of gain-share payments—which are savings on projects that are shared 50-50 between SEW and the commercial participants—paid to the consortium have resulted from capital works risks, which have not eventuated. SEW has now removed risk allocations from gain-share calculations, and should therefore, achieve further savings.

‘us’ – Utility Services has generated significant revenue for SEW by providing services to external parties. It is a capable new market participant whose management, administrative and operational technologies have benefited SEW and increased competition in, and delivered benefits to, the industry. Anecdotal evidence suggests that its staff have more interesting and diverse jobs, with greater opportunities for new experiences and learning than was the case under the schedule of rates arrangements.

1.2.3 Management and review

The alliance development process was conducted with probity. However, there were lapses in documentation, and although a probity adviser was appointed, there was no probity auditor.

SEW:

- adequately identified alliance risks and changed its own risk profile as a result of forming the alliance
- accounts for the cost of managing the alliance and allocates this cost to the alliance
- audits the consortium’s costs
- through ‘us’ – Utility Services management, has been thorough in identifying and mitigating the risks of external works.

A rigorous review of the whole alliance agreement is warranted because:

- alliancing is a relatively new procurement method
- SEW had minimal experience with alliancing
- a 12-year term is much longer than the procurement arrangements undertaken by the other metropolitan water retailers
- the alliance needs to be appropriately benchmarked.

Without such a review, SEW is not in a position to demonstrate that the alliance is its best procurement option.

1.3 Recommendations

That SEW:

- when undertaking major procurements:
- approve procurement strategy objectives against which the procurement options can be assessed and reviewed
(Recommendation 3.1)
- fully assess all feasible procurement options, particularly those options used within their industry and in similar enterprises **(Recommendation 3.2)**
- separates the roles of probity adviser and probity auditor in its *tendering manual* **(Recommendation 4.1)**
- conducts a rigorous and independent review of the efficiency and effectiveness of the alliance as its chosen procurement option, including comparisons with the procurement approaches used by other water retailers.
(Recommendation 6.5).

That SEW seeks to:

- amend the alliance agreement, deleting the performance pool bonus arrangements on capital works **(Recommendation 5.1)**
- amend the alliance agreement to reflect the current planning and budgeting practice **(Recommendation 6.1)**
- undertake a comprehensive review of the commercial framework annually, in accordance with the alliance agreement **(Recommendation 6.4).**

That the SEW Board:

- establishes the format and frequency of Alliance Governance Board (AGB) reporting to the SEW Board necessary to supplement the balanced scorecard **(Recommendation 6.2)**
- reviews its reporting requirements for the alliance to ensure that key aspects of the agreement, including the margin paid to the consortium are regularly reported to the board **(Recommendation 6.3).**

RESPONSE provided by the Managing Director, South East Water Ltd

We appreciate the numerous positive findings of this report, and are generally supportive of the broader findings and recommendations. In particular, we note that the auditors found that the alliance procurement process was conducted in accordance with appropriate legal requirements and that, nearly three years on, the alliance is achieving South East Water's objectives for cost savings and business growth as well as the broader technical, personnel and innovation objectives that were sought through alliance with a commercial partner with greater business and geographical diversity.

RESPONSE provided by the Managing Director, South East Water Ltd - continued

When regard is had to the fact that this procurement process was commenced some four years ago when alliancing for capital works delivery and operations and maintenance activities was unique to Australia, we are very encouraged by the audit findings.

The report has also made a number of observations about the procurement process and on-going management of the alliance. We welcome the observations as constructive input to future initiatives by South East Water to achieve greater efficiency in its operations, maintenance and capital works, and for other Government entities seeking to establish alliances with the private sector.

2 Background

2.1 About South East Water

South East Water Ltd (SEW) is one of three state-owned Melbourne metropolitan retail water companies¹. SEW was formed in 1995 with the disaggregation of Melbourne Water. It has 1.3 million customers and services an area of 3,640 square kilometres, ranging from Port Melbourne to Portsea and 40 kilometres east of Berwick. This area takes in 16 municipalities.

SEW owns more than \$1.1 billion of infrastructure, which it uses to treat and move water and sewerage between interface points with the Melbourne Water system and its retail customers. These assets include:

- bulk and recycled water supply assets, including storage basins and tanks, pumping and pressure reducing stations, water treatment plants, water mains and property connections
- supervision, control, data collection and security systems
- sewerage and trade waste system assets, including pumping stations, sewer mains and local sewage treatment plants.

In 2006–07, SEW spent \$41.4 million maintaining its assets, primarily on preventative and remedial maintenance. It spent \$69.1 million on capital works, including new sewer and water mains and renewals of existing mains, and pumping stations.

In 1993, Melbourne Water contracted a company to provide civil maintenance services. In 1994, it contracted a second company to provide mechanical and electrical maintenance services. Both contracts were on a schedule of rates basis.

On its establishment in 1995, SEW inherited these contracts and subsequently renewed them. In early 2004, SEW began planning to replace both contracts, which were due to expire on 30 June 2005, with an alliance agreement. Figure 2A summarises the key aspects of a typical alliance.

¹ The other two are Yarra Valley Water Ltd and City West Water Ltd.

Figure 2A
Aspects of a typical alliance

'Alliancing' is a relatively new and increasingly used procurement strategy, whereby the 'owner' and 'commercial participants' establish a 'virtual organisation'. The organisation has no assets, does not employ staff directly, has no bank account and does not enter into contracts in its own name.

A typical alliance:

- *has a board comprising senior representatives of the owner and commercial participants who make all decisions on the basis of what is 'best-for-project'*
- *aims to deliver project outcomes efficiently and effectively for the mutual benefit of all participants*
- *requires the owner to reimburse the commercial participants' direct costs and pays a margin to cover their normal profit and corporate overheads*
- *shares savings or extra costs in a 50-50 split between the owner and the commercial participants*
- *commits all parties to avoiding contract disputation and cost variations by adopting what is described as a 'no-blame, no-disputes' culture*
- *commits all parties to full transparency and open discussion of all financial and operational matters and documents, including open-book accounting.*

Source: Victorian Auditor-General's Office

2.2 About 'us' – Utility Services

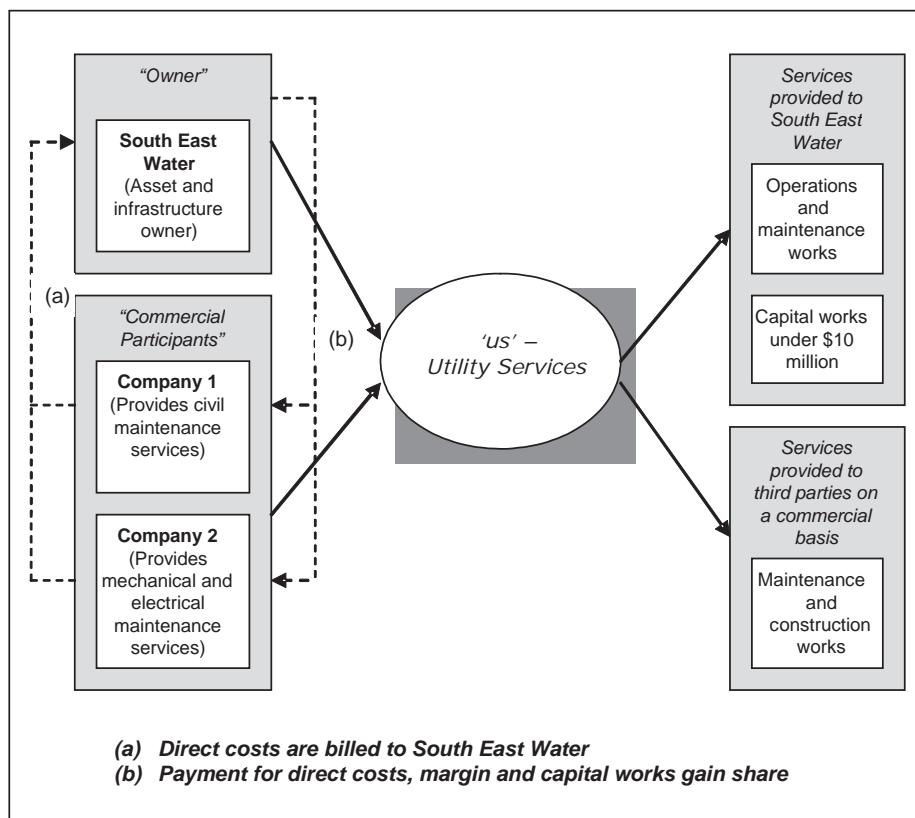
In April 2005, following a three-stage process that assessed the merits of a number of companies and consortia as commercial participants, SEW entered into an alliance agreement with a consortium comprising two companies. The alliance trades as 'us' - Utility Services. The alliance agreement is for a total term of 12 years and can be terminated after seven without financial penalty.

Under the agreement, 'us' – Utility Services:

- manages and carries out civil, mechanical, electrical and other work for the operation and maintenance of SEW's assets and infrastructure
- designs, constructs, installs and commissions capital works budgeted at \$10 million or less for SEW
- does maintenance and construction work for third parties on a commercial basis.

Figure 2B shows the relationship between SEW and the consortium.

Figure 2B
Diagrammatic representation of the alliance relationship



Source: Victorian Auditor-General's Office

Operations and maintenance work includes:

- implementing the preventative maintenance program specified by SEW's Planning Branch
- remedial maintenance, almost all of which is driven by some 175 000 calls received annually by the Faults and Emergency Call Centre, where work is prioritised, dispatched and monitored.

For operations and maintenance work, the consortium is:

- reimbursed for its direct costs, which are mainly labour and on costs, materials, consumables and plant usage
- paid a margin that varies every four months according to its performance.

Under the agreement, 'us' – Utility Services performs all SEW's capital works projects that are budgeted at \$10m or less. It does so by either:

- using employees of the consortia companies, SEW and subcontractors where direct costs are reimbursed and the consortium receives a fixed capital works margin; or by
- engaging and project managing one or more contractors, using alliancing principles for a fee equivalent to the capital works margin.

For each capital works project, ‘us’ – Utility Services prices the above two options and makes a recommendation to SEW, which may carry out further investigations before choosing an option for ‘us’ – Utility Services to implement. If the project is completed for less than the target cost, the ‘gain’ is shared equally between SEW and the consortium. If it is completed for more than the target cost, the ‘pain’ is also shared equally. The consortium’s ‘pain’ is capped at the amount of its margin.



Utility Services depot office at Lynbrook

‘us’ – Utility Services is headed by its Alliance Governance Board, comprising two SEW representatives and one representative of each of the consortium members. Consistent with the virtual organisation concept, staff from the three companies work closely together at the organisation’s depot/office at Lynbrook in Melbourne’s south-east suburbs and identify as ‘us’ – Utility Services operatives. They continue, however, to be employed by one of the three companies. All employee clothing, major equipment and promotional material is badged with the yellow and black ‘us’ – Utility Services corporate identity.

Figure 2C shows the key dates in the development of the alliance.

Figure 2C
Key dates in development of ‘us’ – Utility Services alliance

Date	Milestone
1993, 1994	Melbourne Water contracts a company to provide civil maintenance services and another company to provide mechanical and electrical maintenance services
January 1995	SEW inherits these Melbourne Water contracts
September 2003	SEW enters into an alliance arrangement with the civil maintenance service provider to construct sewerage works at Rye
March 2004	The SEW Board approves management exploring options for an alliance agreement covering maintenance, mechanical and electrical services
August–September 2004	SEW calls for expressions of interest (EOI); eight responses received After evaluation of EOIs, four respondents are selected to: <ul style="list-style-type: none"> • price a selection of operations and maintenance activities • state a margin to be applied to operations and maintenance and capital works • price a representative construction project
October 2004	SEW interviewed four respondents and considers value for money based on pricing and margin information submitted: three respondents are selected to go forward
November–December 2004	SEW conducts workshops with three respondents to select one preferred respondent
December 2004	The SEW Board approves a consortium of the two existing contractors as the preferred respondent for final negotiations about the alliance agreement and commercial framework
January 2005	The SEW Board authorises its managing director to execute alliance agreement
April 2005	Parties execute the alliance agreement

Source: Victorian Auditor-General's Office

2.3 Audit objectives and scope

The audit objective was to assess the planning and management of the alliance contract, and whether the alliance is achieving SEW's objectives and the expected benefits.

To satisfy this objective, the audit examined:

- if the business case for the alliance was adequate
- if SEW complied with legislative and other requirements in establishing the alliance agreement
- if SEW is achieving its objectives for the alliance

- if SEW has adequately managed the risks to itself and the state arising from the alliance
- operations and maintenance services procurement models used by City West Water and Yarra Valley Water.

This audit was performed in accordance with the applicable Australian Auditing Standards for performance audits and included tests and procedures to enable audit conclusions to be reached. The cost of the audit was \$190 000, including staff time, contractor and specialist fees, overheads and printing.

3

Adequacy of preparation for the alliance

At a glance

Key findings

- South East Water (SEW):
 - did not adequately assess the alliance option against other procurement options, or its alliance model against other alliance models
 - identified alliance risks and made changes to its own risk profile as a result of forming the alliance
 - identified, but did not quantify, the costs and benefits of alliancing before selecting it as a procurement method
 - quantified the costs and benefits of alliancing when the preferred alliancing respondent was selected.
- The business case for developing the alliance was only finalised at the time the preferred alliancing respondent was selected.

Recommendations

That SEW, when undertaking major procurements:

- approve procurement strategy objectives against which procurement options can be assessed and reviewed (**Recommendation 3.1**)
- fully assess all feasible procurement options, particularly options used within their industry and in similar enterprises. (**Recommendation 3.2**)

3.1 Were alternative procurement options considered?

In mid-2003, SEW negotiated with two tenderers to construct a sewerage system in Rye, using an alliance approach. It subsequently entered into an alliance agreement with its existing civil maintenance contractor for the project. The final project cost to SEW was \$6.97 million, compared with the estimated cost of \$7.63 million. The project was completed ahead of schedule, achieved a high level of customer satisfaction and cooperation with the relevant local council, and had no lost-time injuries. Consequently, SEW considered the alliance concept had been a success.

In March 2004, the SEW Board considered advice from management and alliance consultants outlining options about how best to pursue an operations and maintenance alliance when the then-current civil maintenance and mechanical and electrical contracts expired on 30 June 2005. Neither management nor the consultants' advice evaluated the alliancing option against other procurement options, for example a revised or re-tendered schedule of rates.

In July 2004, management advised the SEW Board that it had assessed the risks associated with four different procurement options for their operations, maintenance and construction works. In this assessment, the alliance option was given the lowest risk ranking.

In December 2004, the SEW Board received management advice that the three procurement options of, renewing the existing schedule of rates contract, bringing the activity in-house, and entering into an alliance agreement had been evaluated and that alliancing was considered the most appropriate. The only supporting documentation that accompanied this advice was a brief rationale for why alliancing was superior to the then-current schedule of rates contract.

The audit found no evidence that these procurement options had been adequately evaluated. There was no cost-benefit analysis or economic evaluation of the different procurement options. Further, there was no evidence that SEW assessed alternative alliance models and their different features to determine which features would best suit its purposes.

For example, at the time SEW was developing the alliance proposal, City West Water, another metropolitan water retailer, had an alliance services agreement with a civil, mechanical and electrical maintenance services provider. That alliance was established in March 2003. The duration was three years and provided for:

- a joint leadership team, comprising senior members of the retailer and the provider to oversee alliance activity
- reimbursement of all the provider's direct costs
- a provider's margin with three components (fixed or not-at-risk, at-risk against KPI performance and gain-share, which is at risk against financial performance)
- annual performance reviews.

The other metropolitan water retailer, Yarra Valley Water, currently has a performance-based service agreement for emergency and programmed maintenance. Under this agreement, which is for an initial five years:

- the retailer pays the contractor the target cost for the majority of schedule of rates activities
- the contractor provides the retailer with audited costing details for the activities
- the difference between the target and actual costs (pain-share or gain-share) is equally shared between the two parties
- each year a new target rate is struck at the half-way point between the actual and target rates
- achievement against KPIs and efficiency determines whether the contract will be extended or shortened from the initial five-year contract term.

Conclusion

SEW's overarching intention should have been to replace its existing contracts with the best procurement option available to it. The audit found no evidence that this intention was made explicit by the SEW Board, or that the process of replacing the existing civil maintenance and mechanical and electrical service contracts was based on such an intention.

SEW did not:

- adequately analyse the full range of procurement options or alliance models available to it and compare the likely costs and benefits of each
- use this information in a business case supporting the most cost-effective procurement option before management began their detailed investigations.

Recommendations

That SEW when undertaking major procurements:

- 3.1 approve procurement strategy objectives against which procurement options can be assessed and reviewed
- 3.2 fully assess all feasible procurement options, particularly those options used within their industry and in similar enterprises.

3.2 Were South East Water's objectives for the alliance clearly specified?

In March 2004, the SEW Board recommended that management seek an alliance arrangement for their operations and maintenance works. The board noted management's expectation that an alliance would deliver cost savings, innovation and development opportunities. Subsequently, objectives for the alliance have been stated in management advice to the SEW Board, the request for expressions of interest, the 'us' – Utility Services business plan and correspondence to the audit.

The statements of SEW's alliance objectives have not been uniform across the documentation. However, the four general themes were to:

- reduce costs while maintaining service levels, including to be a value-for-money service provider; to deliver the savings expected by SEW; and to optimise performance in terms of cost, reliability and availability over the lifecycle of assets
- achieve profitable growth and increase unregulated income¹ by undertaking external works
- encourage the alliance partners to bring technologies to the alliance and to further develop technologies within the alliance
- attract, retain and develop skilled staff, through staff exchanges within the alliance, and enhancing the commercial skills of SEW staff through partnering with the private sector.

The various statements of objectives have also included achieving recognition as a leader in the industry, including being the value benchmark for other water authorities and providing industry leadership and innovation.

Further, the statement of objectives in the alliance agreement includes a 'commitment to excellence in safety', which did not appear in the other statements of objectives.

Conclusion

While the substance of SEW's four objectives for the alliance has remained essentially the same, their expression has been inconsistent; and the SEW Board has not formally approved a separate clear statement of objectives for the alliance.

3.3 Were costs and benefits identified?

Given the magnitude, significance and duration of the alliance agreement, audit expected that SEW would have quantified the costs and benefits of the alliancing procurement option.

¹ Unregulated income is not included in the water plan that SEW submits to the Essential Services Commission. The commission does not take account of unregulated income in its process of setting water and sewerage charges.

The SEW Board considered advice from an alliancing consultant in March 2004, which outlined, but did not quantify, the expected benefits of an alliance. These were:

- savings from workforce reductions
- greater value from its intellectual property
- exposure to the commercial focus of the participants
- reduced direct and indirect costs
- improved customer service and other non-financial drivers.

The SEW Board was advised by management in July 2004 that an alliance would save about five per cent of operations and maintenance costs annually. This was based on advice from alliancing consultants and other alliances. It was also advised that establishment costs were expected to be about \$150 000, excluding redundancy payments.

In December 2004, at the meeting when SEW approved the preferred respondent, the board was given a financial assessment of the proposed alliance. The assessment forecast:

- savings of \$1.4 million annually through a reduction in employee numbers
- savings of \$1 million a year, being five per cent of relevant operations and maintenance expenditure
- costs of \$500 000 for establishment expenses and \$800 000 for redundancies
- initial sales to third parties of \$10 million a year.

Conclusion

SEW identified, but did not quantify, the costs and benefits of alliancing before selecting it as a procurement method. The costs and benefits of alliancing were quantified at the time the preferred alliancing respondent was selected.



Top image: Flexible coiled pipe is ready to be dragged through an unserviceable rising main.
Lower image: The pipe has been dragged through the old main. A 'us' – Utility Services worker is making it ready to be pressure-filled with steam from the boiler unit (top, above). This reinstates the pipe to its circular shape within the old main. This method is far quicker and cheaper than digging up the old main and replacing it, and compact pipe is as strong as standard plastic main.

3.4 Were risks identified?

In October 2004, SEW obtained legal advice about how risk is treated within an alliance. It subsequently commissioned a risk identification and profiling review to assess changes in risks as a result of moving into an alliance. That review identified 85 risks, two of which were significant:

- damage to SEW's brand name
- failure to have fit-for-purpose OH&S policies and practices across the alliance.

Conclusion

Alliance risks were adequately identified. SEW also made changes to its own risk profile as a result of forming the alliance and communicated these changes to the board.

3.5 Was the business case for an alliance made?

The government's *Business Case Development Guidelines*² provide a best practice benchmark for government business enterprises. They state that the greatest opportunity to influence project outcomes and cost savings is in the early stages of a project's lifecycle: during the strategic assessment, options analysis and business case stages. The guidelines, produced as part of the government's 'gateway initiative', place the development of a business case before the development of a procurement strategy.

Between March and December 2004, the SEW Board considered management advice about the approach to adopt in pursuing an alliance arrangement, the proposed alliance objectives, scope of works, the commercial model, human resources, risk management, timelines, governance and the selection process. In mid-December 2004 the board considered the rationale for choosing alliance, a financial assessment of the alliance arrangement, probity arrangements and progress on the partner selection and agreement processes. At the same meeting, the board decided to proceed with an alliance and chose the preferred respondent.

In November 2004, SEW's Risk, Finance and Audit Committee requested that management provide the board with a business case for the alliance before detailed negotiation of contract terms with the preferred respondent occurred, including:

- a detailed analysis of risk issues and how they would be managed
- parameters of the substantive terms for final negotiation
- an outline of the selection process up to that time.

All these items were supplied to the board but the detailed risk analysis was not provided until after the alliance agreement had been executed.

SEW maintained that important aspects of the business case (such as the number of staff to be made redundant and the commercial framework) could not be finalised until December 2004. It said that had the SEW Board rejected the recommendation for the alliance, there was still adequate time to investigate other procurement options before the existing service contracts expired at the end of June 2005.

² These guidelines were published for the development of a business case for asset initiatives under the 'gateway initiative' for projects costing \$5 million or more. The guidelines were first published in 2003 and revised in 2006.

Conclusion

The business case for developing the alliance was made over a period of time and only finalised at the time the preferred alliancing respondent was selected and not before the development of the procurement strategy, as recommended in the government's *Business Case Development Guidelines*.

4

Compliance with legislative and other requirements in establishing the alliance

At a glance

Key findings

- South East Water (SEW):
 - complied with relevant legislation in establishing the alliance
 - conducted the alliance development process with probity, although there were some inadequacies in documentation and approval processes.

Recommendation

- That SEW separates the roles of probity adviser and probity auditor in its *tendering manual*. (**Recommendation 4.1**)

4.1 Did South East Water comply with relevant legislation?

When developing the alliance agreement, South East Water (SEW) received legal advice that the agreement did not contravene the company's licenses, constitution, governing Acts—*Water Industry Act 1994*, *Water Act 1989*—or other legislation relevant to its business and operations. It discussed alliancing options with the Department of Treasury and Finance, and has since provided updates to that department and to the Department of Sustainability and Environment about the alliance's implementation and performance.

Conclusion

SEW identified, and complied with, relevant legislation in establishing the alliance.

4.2 Was the alliance development process conducted with probity?

SEW was aware that the proposed alliance had significant consequences for its existing contractors and that an alliance arrangement would be a matter of widespread industry and public interest. This meant that high standards of probity and process transparency were called for in developing the alliance arrangement and selecting the commercial participants.

SEW has a comprehensive *tendering manual* that addressed probity requirements in depth. The manual:

- required that for contracts of more than \$1 million a probity plan must be developed and signed by the appropriate general manager in advance of the procurement process
- provided for the appointment of an external probity auditor for large, complex or sensitive projects to advise during the process and to prepare a full report at the end of the process, certifying that all proper procedures had been followed
- required that every party in the procurement process, including contractors and consultants, sign a conflict of interest declaration and confidentiality agreement.

In July 2004, the month before the alliance expression of interest was advertised, SEW appointed a probity adviser. The adviser made clear that they were acting as a probity adviser and not a probity auditor.

That same month, the adviser provided SEW with a draft probity plan based on Victorian Government Purchasing Board guidelines. Several minor details in the draft were not finalised and the plan was not approved or signed by the appropriate general manager.

The probity adviser also prepared evaluation plans for the three stages, expression of interest, request for pricing information, and preferred respondent process. These plans were also not approved by the appropriate general manager.

The probity adviser:

- conducted probity briefings with SEW's project team
- offered advice about potential probity issues
- reviewed key documents and recommended substantial changes to the draft advertisement for expressions of interest and the *request for pricing information*.

SEW implemented the probity adviser's written advice, including:

- communicating probity requirements to all infrastructure staff
- using a secure data room
- establishing a process to ensure that questions and answers were collated and sent to all respondents via addendums to the *request for pricing information*
- insisting that key project staff sign conflict of interest and confidentiality forms.

SEW did not provide the *expression of interest* document and addenda to the probity adviser in time for the commercial framework component to be reviewed before distribution. The probity adviser subsequently reviewed the commercial framework component and this review raised no substantial issues.

The probity adviser reported to SEW at the conclusion of the expression of interest and request for pricing information stages. These reports expressed satisfaction with the process and raised no concerns. The adviser's final probity report concluded that the process had been conducted with due regard to sound procurement processes and that the evaluation at each stage of the selection process was in line with the adviser's evaluation plans. It concluded the processes were visible, defensible and auditable. However, SEW did not conduct a probity audit of the alliance development process.

Conclusion

While the alliance development process was conducted with probity, and there was no evidence or suggestion of impropriety, there were inadequacies in the documentation and approval processes.

The SEW *tendering manual* confuses the role of probity adviser and probity auditor. The adviser is in no position to offer an independent assessment of the process and outcomes resulting from their advice. This distinction between probity adviser and probity auditor was recognised by the probity adviser in their initial advice to SEW.

Recommendation

-
- 4.1 That SEW separates the roles of probity adviser and probity auditor in its *tendering manual*.

5

Achievement of objectives for the alliance

At a glance

Key findings

- South East Water (SEW):
 - is achieving ongoing savings of \$1.63 million annually as a result of the alliance
 - did not apply the same rigour in determining the commercial participant's margin as it applied to other aspects of the alliance development process
 - carried out a rigorous process to determine the operations and maintenance benchmark prices used for performance monitoring.
- The audit estimated that in 2006–07 SEW paid 6.4 per cent less for operations and maintenance work, compared with its old schedule of rates approach, without adverse impacts on service levels.
- The audit estimated that SEW paid about 6.5 per cent less for a sample of capital works projects than it would have had the alliance not existed, almost completely by eliminating works variations. Reductions in contractors' margins were offset by the margin paid to the consortium.
- SEW's removal of the risk component from the project target outturn cost to a contingency should result in further savings.
- 'us' – Utility Services is a new and capable market participant generating significant profits by providing services to external parties.
- The new management, administrative and operational technologies introduced through the alliance have benefited SEW and the water industry more generally.
- 'us' – Utility Services rate of staff turnover is lower than the bottom end of the SEW target range.

Recommendation

- That SEW seeks to amend the alliance agreement, deleting the performance pool bonus arrangements on capital works. (**Recommendation 5.1**)

5.1 Introduction

In Part 3, we noted that SEW's objectives for the alliance in essence were to:

- reduce costs, while maintaining service levels
- achieve profitable growth and increase unregulated income by undertaking external works
- encourage the alliance partners to bring technologies to the alliance and to further develop technologies within the alliance
- attract, retain and develop skilled staff.

5.2 Has the alliance reduced costs and maintained service levels?

5.2.1 Establishment costs and ongoing cost savings

In December 2004, South East Water (SEW) management advised the SEW Board that it forecast the alliance would save \$1.4 million a year by reducing employee numbers. This reduction came mainly through eliminating duplicated functions and activities across SEW and the consortium, and by ending activities that support the schedule of rates arrangement. In the event, SEW's ongoing yearly savings from 17 redundancies are \$1.33 million.

Previously, maintenance was conducted from several depots. Under the alliance, operations were consolidated into one depot. This has resulted in annual savings of \$300 000, primarily in fuel and labour savings from having one better-located depot.

Management estimated redundancy payments to be \$800 000. They were actually \$1 127 000. Management expected one-off costs for legal and consulting services, advertising, training and other establishment costs for the alliance to be \$500 000. They were finalised at \$395 000.



'us'—Utility Services staff—employees of SEW or the consortium members—work alongside SEW representatives in the field to maximise efficiencies and meet service targets.

Conclusion

SEW is achieving significant savings from staff reductions consistent with its forecasts when planning the alliance; and has made other savings that were not previously forecast. Redundancy costs were over budget, but other establishment costs were under budget.

5.2.2 Establishment of participants' margin

Under an alliance agreement, the owner is required to pay the commercial participants a margin to cover their normal profit and corporate overheads. The margin paid to the consortium is one of the most important commercial features of the alliance agreement.

In September 2003, SEW entered into an alliance agreement with its civil maintenance contractor for capital works at Rye at an 11 per cent margin. SEW's internal auditor reviewed that alliance arrangement and recommended that SEW, should it enter into another alliance, conduct detailed investigations of the financial records and cost structures of future commercial participants to determine the margin to be paid to them.

After evaluating eight expressions of interest, SEW invited four respondents to submit a response, including their nominated margin. These responses were evaluated and three respondents were given the opportunity to revise their margin after detailed discussions about the commercial framework. Only the consortium that was eventually chosen did so. While it did not offer the lowest margin, it scored highest overall against the evaluation criteria. It was not evident that SEW investigated the financial records and cost structures of the consortium members before accepting its revised margin.

Audit notes that City West Water and Yarra Valley Water both have agreements with their operations and maintenance service providers that have resulted in lower margins paid than the margin SEW pays to the consortium.

The margin for capital works is fixed for the 12-year term of the agreement. While the margin for operations and maintenance works varies according to performance, there is no right of review of the original margin during the term of the agreement.

Conclusion

SEW exercised downward pressure on the margins offered by the successful respondents. It made the margin a selection criterion, and invited respondents to lower their margin in the last stage of the selection process.

Nevertheless, the SEW Board cannot demonstrate that it obtained the lowest commercially acceptable margin. SEW did not base its acceptance of the consortium's margin on an establishment audit or other investigation of the companies' overheads and actual margins. SEW's decision was not consistent with the recommendation of its internal auditor, nor with prudent practice for such a substantial contract provision.

5.2.3 Development of benchmark prices

Under the alliance agreement, the consortium's margin for operations and maintenance work varies every four months according to their performance against benchmark prices for six key activities¹. Four of these activities constitute a substantial proportion of total operations and maintenance expenditure; the other two are key mechanical and electrical activities.

After evaluating eight expressions of interest, SEW invited four respondents to submit schedule of rates style prices for the six key activities. SEW's evaluation panel concluded that the differences in prices submitted resulted from respondents making different assumptions about the work specifications. The panel concluded that, using common assumptions, each respondent's direct costs were very similar. Based on the other evaluation criteria, the panel decided that three respondents should go forward to validation workshops.

Workshops were held with the three remaining respondents in November and December 2004. The workshops were attended by SEW's legal, probity and alliance advisers. After these workshops, the evaluation panel recommended the preferred respondent to SEW.

SEW was advised by its legal and alliance advisers that an alliance auditor would typically assess submitted prices for reasonableness. However, management considered that benchmark prices would best be determined by examining every detail of each type of activity in a workshop with the preferred respondent. Accordingly, in January 2005, SEW and the consortium workshopped each activity to determine benchmark prices. These became the initial commercial framework benchmark prices.

The SEW Board was advised in January 2005 that the findings of this exercise would be audited. This did not occur.

SEW advised audit that its previous schedule of rates arrangement did not allow for an ongoing in-depth, open book discussion about specific activity costs. It said that the annual reviews of its old schedule of rates did not examine costs in detail, but looked generally at what savings the contractors thought they could make across the entire schedule of rates.

¹ Benchmark prices are not the actual cost of the activity, or the price the consortium charges SEW (which is the direct cost plus margin). They are the target prices for the purpose of performance assessment: the consortium improves its margin score if the actual cost is less than the target, and vice versa. The target price is also called the 'business-as-usual' price. This is the price—as determined by SEW—for an average instance of the activity undertaken by a very competent engineering organisation.

Conclusion

Benchmark prices for operations and maintenance activities are an important determinant of the costs for SEW and of the remuneration to be paid to the consortium. While the submitted price validation exercise was not audited in line with advice from consultants and a commitment to the board, SEW conducted a rigorous process to determine benchmark prices for key operations and maintenance activities.

Open discussion about costs is a major benefit of alliancing. It also enabled SEW to conclude that alliancing would put downward pressure on costs in a way that its schedule of rates contract would not.

5.2.4 Operations and maintenance

Savings

Before the alliance, SEW's operations and maintenance contracts were based on schedules of rates. One schedule detailed some two hundred items, including outcomes, such as 'replace damaged hydrant', activities, such as 'test backflow device', labour, plant and material items. The schedules specified the price each contractor would be paid for providing the item and how the item price would be adjusted for inflation over the period of the contract.

The alliance agreement uses a different paradigm. All operations and maintenance work is charged at its direct cost (mainly labour, labour on-costs and materials) plus a margin. The margin, which allows for corporate overheads and profit, has a base level and is adjusted every four months in line with the alliance's performance.

On the basis of its expert advice, and the experience of other maintenance alliances, SEW expected that moving from its schedules of rates to the alliance would result in savings of five per cent on most operations and maintenance work. This constituted an expected saving of \$1 million annually. However, SEW has not determined if alliancing has resulted in savings on operations and maintenance expenditure.

As SEW has not calculated its savings from an alliance, audit estimated what SEW's 2006–07 operations and maintenance program would have cost SEW if its schedule of rates had continued after April 2005 and had not been re-negotiated or replaced by the alliance agreement. The detailed assumptions made and the methodology used to estimate the savings are explained in Appendix A.

Based on these assumptions, it is estimated that in 2006–07 SEW paid 6.4 per cent less for operations and maintenance work including labour, materials and plant usage than it would have had the 2005 schedule of rates continued. This is an estimated saving of \$1.05 million in 2006–07, which is in addition to the \$1.63 million a year savings achieved by moving to the alliance.

Conclusion

On the basis of audit's estimates, SEW's savings from the alliance represent a good commercial outcome for its customers and shareholder, compared with the previous schedule of rates approach. The estimated savings are evidence that alliance contracting is a viable procurement strategy for operations and maintenance services for government business enterprises.

RESPONSE provided by the Managing Director, South East Water Ltd

South East Water ensured that there were savings from the alliance in comparison with previous operations and maintenance expenditure by committing to a budget reduction equivalent to the projected savings for those works under the alliance. The alliance met all KPIs within the reduced budget. South East Water considered that this was sufficient evidence to satisfy management and the Board that savings were made.

Service levels

Since August 2006, 'us' – Utility Services has used a balanced scorecard approach to report to the SEW Board each month against 22 indicators. Ten of these indicators directly measure the quality of service provided to customers and seven of these 10 are requirements of the Essential Services Commission.

From August 2006 to January 2008, 'us' – Utility Services managed to exceed its performance targets in most months. It always, or almost always, exceeded its targets for customer satisfaction, water quality complaints, sewer spillages fully contained within five hours, sewer blockages cleared within four hours, faults hotline answered within 30 seconds, correspondence answered within 10 days and handling customer complaints. However, it fell short of its targets for unplanned water mains interruptions restored within five hours, and average duration of unplanned water supply interruptions, in five of the months.

Conclusion

SEW has maintained service levels under the alliance agreement.

5.2.5 Capital works

Savings

Under the alliance agreement, ‘us’ – Utility Services is responsible for all SEW’s capital works projects that are budgeted at \$10 million or less. It does so by:

- engaging and project managing one or more contractors using alliancing principles, or
- using its own labour, and getting its direct costs paid².

Under either method, a fixed margin equivalent to the base operations and maintenance margin is paid to the consortium.

From the \$69.1 million SEW spent on capital works in 2006–07, \$30.9 million (or 45 per cent) was undertaken by ‘us’ – Utility Services. The balance mainly represents major capital works, which are the subject of tender processes administered by SEW.

Although SEW did not forecast savings on capital works projects as a result of establishing the alliance in its business case, it was expected. ‘us’ – Utility Services believes savings have resulted from:

- elimination of project variations as a result of using a consortium member’s method of engaging subcontractors
- subcontractors bidding more competitively and reducing their margins
- the consortium’s national buying power reducing costs on some materials
- use of a consortium member’s compact pipe technology at a lower cost than is available to the general market.

As SEW has not calculated its savings on capital works projects resulting from the alliance, audit estimated the savings. To do so, audit compared the cost of every capital works project completed at the time of the audit with what SEW could reasonably have expected to pay had the alliance not existed. The assumptions made and the methodology used to estimate the savings are explained in Appendix D.

On the basis of the assumptions made, audit estimated that SEW has paid about 6.5 per cent less for the completed capital works projects than it would have, had the alliance not existed. This audit also calculated that savings from the absence of works and related cost variations amounted to 6.3 per cent of total capital works costs in 2004–05.

The audit found that contractors have reduced their margins in order to continue contracting to the alliance. While it was not possible to calculate the exact extent of the margin reductions, audit found that the consortium’s margin was within the likely range of contractors’ margin reductions.

² The process by which work is awarded is described in Appendix C.

Conclusion

Audit estimates that SEW has paid about 6.5 per cent less for capital works projects completed by the alliance than it would have had the alliance not existed. The major contributing factor to this saving was the elimination of work and cost variations on almost all the completed projects, with reductions in contractors' margins offset by the margin paid to the consortium.

Risk allowance within the target outturn cost

SEW routinely estimates the risk involved in undertaking a capital works project, for example, from unknown soil types or using new construction techniques. It includes an allowance for risk in the project's target outturn cost³ (TOC). If the risk does not eventuate, this saving becomes part of total gain-share, which is split 50-50 between SEW and the consortium.

Thirteen of the 27 completed capital works projects examined had an allowance for risk. In 10 of these 13 projects, actual costs were less than budgeted costs by more than the size of the risk component, and so risk components totalling \$367,450, or 3.6 per cent of the total TOCs of these projects contributed directly to gain-share.

SEW advised that when the alliance started it would adopt a conservative approach in line with industry practice, and would always add a risk component to TOCs. With experience, it decided to exclude risk from all subcontracted works because good subcontractor management resulted in the avoidance of variations. It has also removed the risk component from some projects undertaken by 'us' – Utility Services with its own labour; and is moving towards shifting risk outside the TOC into a contingency, thus eliminating gain-share payments as a result of risk not eventuating.

Conclusion

'us' – Utility Services has consistently delivered capital works projects for lower than the estimated TOC, and in most cases, without needing to draw on the risk component. Because the risk component was included in the TOC, it has been a significant contributor to total gain-share. 'us' – Utility Services believes it has minimised or eliminated risk through superior performance. However, it is also possible that SEW has been overly conservative in its estimation of risk and that this has resulted in significant gain-share to the commercial participants. SEW's removal of the risk component from the TOC to a contingency should result in further savings.

³ TOC is also sometimes referred to as the target cost estimate (TCE). The TCE is the entire list of line items that make up the total: the TOC is the total of all the line items expressed as one amount. The process for developing the target outturn cost for capital works is described in Appendix C.

Control of variations

SEW experienced substantial claims for variations under their previous contracting arrangements. Under the alliance, there has only been one scope variation for a capital works project. That variation was required because SEW's historical drawings were incorrect and actual conditions were quite different to those expected by the work crew.

'us' – Utility Services uses a consortium partner's subcontractor agreement rather than the Australian Standards General Conditions of Contract (AS2124–1992) when project managing capital works contractors. These subcontractor agreements clearly specify that projects will be run on a best-for-project basis and that this may require altering project components without compensation.

This is consistent with usual alliance practice, as one expert has noted:

'The management of scope changes under an alliance is very different to the administration of variations under a traditional form of contract like AS 2124–1992. In an alliance, all the alliance participants should be involved in the development of the target cost estimate and have the opportunity to allow for inherent uncertainties consistent with the state of knowledge at the time. Under a conventional contract the contract sum is usually only the starting point. With the impact of variations and claims the eventual cost (the 'outturn cost'), especially on complex projects, is often substantially higher than the tendered cost.'⁴

'us' – Utility Services' experience with its contracting approach is that contractors do not ask for loss of profits and will discuss savings they have made on some parts of the project to balance out additional costs on other parts. Contractors adopt a best-for-project outlook rather than seeking opportunities for variations.

Conclusion

There has been only one scope variation out of 27 completed projects. This demonstrates that the alliance agreement has been effective in controlling cost variations on capital works projects.

Use of key performance indicators for capital works projects

For each capital works project, the alliance agreement provides for the setting of key result areas (KRAs) and a performance pool of 1.5 per cent of the TOC to reward outstanding performance in those areas.

⁴ Ross J., *Presentation to Institution of Engineers 17 August 2000 Brisbane, Australia - Introduction to Project Alliancing*.

This provision of the agreement has not been invoked since the alliance started. In November 2006, advice from the Alliance Manager to the Alliance Governance Board (AGB) noted that the development of KRAs was time consuming, had a high administrative component and when developed for a previous alliance took a number of months to initially agree to and finalise on project completion. The advice expressed a need to consider the efficacy of using the performance pool. The AGB subsequently decided not to do so.

The SEW Board has not been advised that this provision of the agreement has not been invoked.

Conclusion

The performance pool for major capital works was not being utilised and the Alliance Governance Board subsequently decided that the cost of administering the performance pool arrangements outweighed its benefits. Audit also recognises that 'us' – Utility Services has other mechanisms to monitor key result areas, such as project timeliness, safety, environmental and community impacts. However, the parties have not changed the agreement to reflect their practice.

Recommendation

- 5.1 That SEW seek to amend the alliance agreement, deleting the performance pool bonus arrangements on capital works.

RESPONSE provided by the Managing Director, South East Water Ltd

The Auditor-General recommends deleting the performance pool bonus arrangements from the alliance agreement. South East Water does not want to delete this clause as (i) its current lack of application is by mutual consent of the alliance partners through the Alliance Governance Board, and (ii) it needs to be retained in the event of future need.

5.3 Has the alliance increased external work?

Early in the process of developing the alliance, SEW identified the alliance as a potential vehicle to sell services—using its in-house skills and intellectual property—to other water agencies, local governments and to the wider public and private sectors.

In November 2004, SEW commissioned a consultant to provide a high-level strategic assessment of growth opportunities. The consultant considered that the most worthy options were construction of water and sewerage systems; maintenance and operation services through an alliance; sale of water and sewerage products (synergistically with the alliance); consulting (as a support offering of an alliance); and SEW's priority plumbing business. The consultant concluded that 'an alliance with an established large-scale firm with a proven track record will assist SEW in overcoming the barriers to entry that are present to newcomers'.

Before the alliance, SEW's only unregulated income was from payments by people damaging its assets and priority plumbing revenue, which was under \$1 million a year.

In 2006–07, 'us' – Utility Services' unregulated revenue was \$21.6 million, which was \$3.33 million above budget. Earnings before interest and tax was \$2.35 million, which was split 50/50 between SEW and the consortium⁵. Services provided were:

- operations and maintenance: InnaTube pipe lining technology, air scouring of water mains and acoustic leak detection
- construction: relocation of pipelines and mains, compact pipe, trenchless pipe rehabilitation and hazardous sewer connections
- hydrographic services: remote site monitoring and web-based reporting
- sundry services: traffic management, call centre, road repairs and reinstatements, and minor design work
- plumbing: *priority plumbing* for residential customers and *ultra plumbing* for commercial customers.

Conclusion

'us' – Utility Services is a new and capable market participant making significant profits by providing services to external parties.

5.4 Has the alliance introduced new technologies?

A key driver in the growth of external works revenue has been the existing and new technology and intellectual property that each party has contributed to the alliance.

At the outset, the consortium contributed its competitive philosophies and approaches, work systems and resources. These included:

- its approach to managing contractors, which 'us' – Utility Services considers has significantly reduced the cost of capital works
- its systems for managing occupational health and safety issues, tendering for external works and tracking costs

⁵ SEW also receives unregulated income from the sale of bore and recycled water, and from rent paid by phone companies to place transmitters on SEW's assets.

- its pool of subcontractors
- its national purchasing power, which has enabled the alliance to source high-demand items, such as plastic pipe at nationally competitive prices and much sooner than SEW would itself have been able to have it delivered.

SEW brought its reputation as an established public sector water and sewerage agency. ‘us’ – Utility Services believes this is a major asset when seeking to sell services to a conservative, risk-averse industry.

For example, a consortium member has exclusive rights to compact pipe and the smaller diameter InnaTube relining technologies in Australia and New Zealand.

Block Aid detection equipment was a consortium member’s product that it decided to sell through the alliance. It is installed in sewer or stormwater manholes to automatically detect high water levels and alert the relevant local authority. This mitigates flooding, environmental damage, clean up and compensation costs resulting from an overflow.

Hydroshare is a web-based system for monitoring water flows that had its origins in work by a consortium member’s Hydrographic Services Division. It uses a flow meter and data logger to transmit water flow data across the other consortium member’s network to a web-based system developed by SEW.

The alliance’s other products and services include an ‘easy lift’ lid and safety grate, air scouring of potable water mains and an acoustic leak detection service.

Conclusion

The alliance parties have brought significant new management, administrative and operational technologies to the alliance, which has benefited SEW and the water industry more generally.

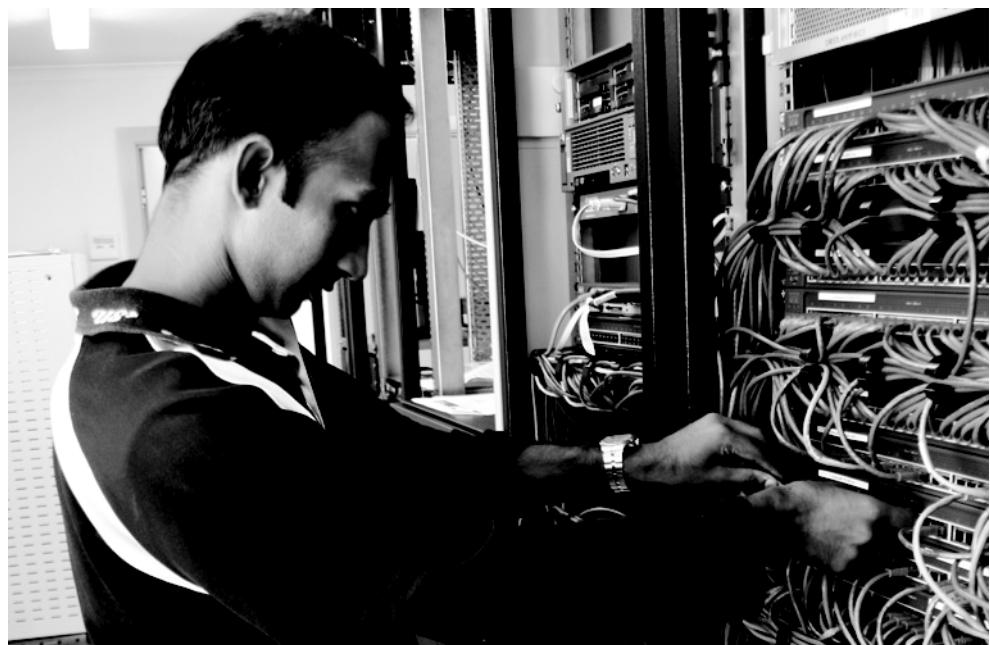
5.5 Has the alliance helped to retain staff?

SEW’s target for staff turnover is 5-10 per cent. ‘us’ – Utility Services turnover in 2005–06 was 3.90 per cent and 4.58 per cent in 2006–07. For the six months to January 2008, it was 3.08 per cent.

There has been no turnover in ‘us’ – Utility Services’ 10 management positions, or in graduates starting work with the alliance. ‘us’ – Utility Services attributes this to employees having a broader range of challenges and opportunities, and greater opportunities to exchange knowledge between the alliance partners.

Conclusion

‘us’ – Utility Services has achieved a low rate of staff turnover. There is anecdotal evidence that this is because it provides staff with more interesting and diverse jobs, with greater opportunities for new experiences and learning, than was the case under the schedule of rates arrangement.



Mechanical and electrical work provides for interesting and diverse jobs for ‘us’ – Utility Services workers.

6 Adequacy of alliance management and monitoring

At a glance

Key findings

- South East Water's (SEW's) planning and budgeting capability operates independently of 'us' – Utility Services.
- 'us' – Utility Services' supplementary reporting to the SEW Board should be more regular.
- The SEW Board should receive information (for example, the margin paid to the consortium) about how efficiently and effectively the alliance is performing as SEW's chosen procurement option.
- In the absence of an annual review, key elements of the commercial framework became outdated and targets for many performance indicators were increasingly unrepresentative of good performance.
- SEW adequately audits, and 'us' – Utility Services has processes in place to check the consortium's costs.
- SEW understands and accounts for the cost of managing the alliance.
- SEW, through 'us' – Utility Services management, has identified and mitigated external works risks.
- SEW should conduct a rigorous review of the alliance.

At a glance – *continued*

Recommendations

That the SEW Board:

- establishes the format and frequency of the Alliance Governance Board (AGB) reporting to the SEW Board necessary to supplement the balanced scorecard (**Recommendation 6.2**)
- reviews its reporting requirements for the alliance to ensure that key aspects of the agreement, including the margin paid to the consortium are regularly reported to the SEW Board. (**Recommendation 6.3**)

That SEW seeks to:

- amend the alliance agreement to reflect the current planning and budgeting practice (**Recommendation 6.1**)
- undertake a comprehensive review of the commercial framework annually, in accordance with the alliance agreement. (**Recommendation 6.4**)

That SEW conducts a rigorous and independent review of the efficiency and effectiveness of the alliance as its chosen procurement option, including comparisons with other water retailers' procurement approaches. (**Recommendation 6.5**)

6.1 Has South East Water retained an independent planning function?

In January 2005, the South East Water (SEW) Board considered the need for the appropriate independence of its planning function from the alliance. The board asked management to prepare a ‘decision tree’ showing processes and accountabilities for approving works and variations of works undertaken by the alliance.

The decision tree shows that asset management plans, annual operations and maintenance, and capital works budgets, are developed by SEW’s Planning Branch, and reviewed and approved by the board.

These arrangements had been upheld since the beginning of the alliance agreement. We also found that SEW’s expenditure on planning has remained about the same in the past four financial years.

The alliance agreement requires the Alliance Governance Board to prepare annual operations and maintenance and capital works plans and budgets. The audit found that such plans and budgets are prepared by SEW and not by ‘us’ – Utility Services.

Conclusion

SEW’s planning and budgeting capability operates independently of ‘us’ – Utility Services. However, the alliance agreement does not reflect this.

Recommendation

- 6.1 That SEW seeks to amend the alliance agreement to reflect the current planning and budgeting practice.

6.2 Is reporting by the alliance comprehensive?

In the first month of alliance operations, ‘us’ – Utility Services management began providing the Alliance Governance Board (AGB) with monthly reports:

- covering operating expenses, external works, capital works and occupational health and safety
- comparing actual with target performance against a number of indicators.

In the same month, ‘us’ – Utility Services began to report monthly to the SEW Board via the business performance report on its performance against key financial and operational indicators.

On the recommendation of SEW's internal auditors, 'us' – Utility Services' monthly business performance report for the SEW Board was replaced in August 2006 with a one-page balanced scorecard on performance against strategic, commercial and operational indicators.

To supplement the balanced scorecard, 'us' – Utility Services made a quarterly financial report to the SEW Board in October 2006, a half-year report in February 2007 and a full-year report in July 2007. Each report had a different format with differing levels of detail with respect to statistics, explanatory text, reporting of actual expenditure against budget and explanation of variances.

'us' – Utility Services does not report to the SEW Board about performance against the commercial framework targets, changes to the operations and maintenance margin or pain-share/gain-share outcomes.

Conclusion

'us' – Utility Services supplements its regular reports to the SEW Board with other financial reports, using different formats and at various intervals. Greater regularity of formats and reporting periods is needed.

The board does not receive information about how efficiently and effectively the alliance is performing as the chosen procurement option. For example, the margin being paid to the consortium is an important measure of the alliance's performance and should be reported.

Recommendations

That the SEW Board:

- 6.2 establishes the format and frequency of AGB reporting to the SEW Board necessary to supplement the balanced scorecard
- 6.3 reviews its reporting requirements for the alliance to ensure that key aspects of the agreement, including the margin paid to the consortium are regularly reported to the board.

6.3 Has good performance been identified and rewarded?

For operations and maintenance work, the consortium's margin is set every four months according to its performance against 16 key performance indicators in the alliance agreement's commercial framework. Key aspects of the commercial framework are in Appendix B.

On its first adjustment, the establishment margin increased by more than one per cent. It has been adjusted every four months since, but has never fallen below the establishment margin. The relatively large initial jump in the margin is unlikely to be explained by a major change in performance, and more likely to be understood through factors within the commercial framework. This highlights the need to review the commercial framework.

The alliance agreement states that the AGB will review the key performance indicators, the bases of measurement, weightings and performance targets for operations and maintenance work, at least annually, every April.

In November 2005, the AGB discussed the commercial framework and concluded that it was well-aligned with alliance objectives and was driving the required outcomes. It also made minor amendments to the performance ranges for some activities.

In October 2006, the commercial framework was discussed at a two-day 'us' – Utility Services business planning meeting. Meeting minutes were not recorded but SEW advised that it was too early in the life of the agreement to make any changes. The commercial framework was also not reviewed in April 2007, as required by the alliance agreement. It was reviewed in March 2008.

Since the alliance started, the consortium has met its service level KPIs in most months although total operations and maintenance expenditure has been above budget for two thirds of the time, and the cost of undertaking one of the key activities has frequently been over the 'business as usual' target cost.

With respect to total operations and maintenance activity being over budget, SEW budgets for planned and unplanned maintenance to its assets. SEW sets the budget by considering average levels of maintenance activity over the past seven years. However, actual activity for the four KPIs was often substantially above predicted activity for 2005–06 and 2006–07. This was largely due to continuing drought conditions which have not only increased activity levels but created major peaks in activity that require a round-the-clock effort, which increased overtime payments. These circumstances are consistent with experience throughout the Victorian retail water sector.

In regard to key activity costs being more than the business-as-usual target cost, these costs were negotiated in January 2005, and apart from minor adjustments in 2005, were not adjusted until March 2008. During this period they were subject to overtime pressures resulting from the high activity levels. Prices for labour, fuel and raw materials also increased significantly. Also, more stringent traffic management requirements have increased the average labour input required for jobs. Self-evidently, these factors had made it increasingly hard for 'us' – Utility Services to meet its KPI targets.

The March 2008 review revised the outdated KPIs, including the whole budget KPI to allow for increased volume of activity. The revised KPIs also reflect the significant cost increases that have occurred in labour, materials, fuel and other inputs since the inception of the agreement.

Conclusion

The requirement for a comprehensive annual review of the commercial framework has not been met. The first anniversary review was cursory and the second did not occur. Consequently, it became increasingly difficult for the consortium to meet several of their performance targets, not necessarily because performance was poor, but because the commercial framework was outdated.

Thorough annual reviews of the commercial framework are important because internal and external factors, such as productivity improvements, inflation in the cost of materials, new legislative requirements and weather extremes are all subject to ongoing change. Also, reviews help ensure that 'all parties win or lose together' and that there is 'equitable sharing of risk and reward', two principles that underpin, and are stated in the alliance agreement.

Recommendation

-
- 6.4 That SEW seeks to undertake a comprehensive review of the commercial framework annually, in accordance with the alliance agreement.

RESPONSE provided by the Managing Director, South East Water Ltd

- *South East Water's KPIs are subject to various constraints beyond the alliance partner's views on best performance. They must be set having regard to government policies, Essential Services Commission (ESC) determinations (which fund the cost of any service level improvements) and board determinations. Policy positions have made it imperative that tight KPIs be maintained on matters such as bursts and leaks despite drought conditions making those targets very difficult to achieve technically and financially. On indicators not subject to ESC control, where there have been significant fuel and labour cost increases, South East Water has retained its performance at tight levels by agreement with the alliance partners for the benefit of its customers and to encourage innovation.*
- *The report indicates that margins have exceeded the establishment margin but that this is "unlikely to be explained by a major change in performance". It is not clear what evidence this conclusion is based upon. The fact that the margins have exceeded the establishment margin reflects the fact that performance has exceeded business-as-usual from the outset. This is a positive, rather than negative, outcome of the commercial framework.*

RESPONSE provided by the Managing Director, South East Water Ltd - continued

- *Reviews of the commercial framework and KPIs have been undertaken as required by the alliance contract. It appears that the Auditor-General has a different expectation of the “review”, including that a review must result in changes to practices rather than simply endorse the current situation as being still appropriate for the purposes of South East Water. South East Water management is satisfied that reviews have occurred annually with the most comprehensive of these being held in early 2008. The commercial framework and KPIs have been adjusted if/where warranted after each review with the agreement of all parties, and with the objective of ensuring that targets remain challenging and conducive of innovation and continuously improved performance.*

Further Audit comment

The audit conclusion regarding margin adjustments does not relate to exceeding the establishment margin over the life of the agreement, but to the relatively large initial jump in the margin. The performance framework, when first applied, added more than one per cent to the margin bid by the successful respondent. The immediate significant fluctuation raises the possibility that the performance benchmarks were initially too low, thus the desirability of a review.

South East Water contends that the requirement for an annual review of the commercial framework, in April each year, has occurred. Apart from the review that was recently completed in March 2008, the first anniversary review was cursory and there was no evidence that the April 2007 review had occurred.

6.4 Have alliance costs been identified and allocated?

In March 2004, SEW's internal auditor found in relation to the earlier capital works alliance for the Rye project that SEW was not recording the full cost of that alliance agreement. The audit report noted that the importance of capturing indirect project-related costs, to better understand the true cost of alliance agreements, would increase as SEW considered entering into more alliance agreements.

In relation to this alliance with the consortium, SEW's internal auditor has:

- audited costs incurred by the consortium three times and has identified no necessary control system improvements
- identified relevant corporate overheads relating to the alliance, which SEW now allocates to the alliance

- examined the allocation of ‘us’ – Utility Services costs to external works and found that the method of allocating costs to external works had progressively improved since the alliance was established.

Audit found that ‘us’ – Utility Services maintains purchase books, has systems to compare invoices with purchase orders and allocates responsibilities for making and checking purchases. Purchases and lease allocation costs are closely checked by ‘us’ – Utility Services at the administrative and project management level, and progress against budget is regularly checked by SEW’s Capital Works Committee.

Conclusion

SEW adequately understands and accounts for the cost of managing the alliance. ‘us’ – Utility Services has progressively improved the methods by which it allocates a proportion of its internal costs to its external clients.

SEW adequately audits, and ‘us’ – Utility Services has processes in place to check the consortium’s costs.

6.5 Has South East Water adequately managed external works risks?

In July 2005 the SEW Board asked ‘us’ – Utility Services to develop criteria for undertaking external business activities. ‘us’ – Utility Services assesses each potential project or business venture and:

- aims for high-margin work and avoids work for less than a certain margin
- rejects high-risk works, such as site remediation and focuses on types of work, such as pipe relining, where it has significant experience.

The main risks with external works are incorrect estimation and an inability to deliver the contracted works. To mitigate these risks, ‘us’ – Utility Services prices every job from first principles and most contracts have significant margins and contingencies. It monitors margins monthly and reviews all projects in detail on completion. The risk of being unable to deliver is mitigated by only undertaking familiar types of work. For example, ‘us’ – Utility Services offers traffic management services at an hourly rate, which incurs no cost estimating risk.

Audit did not identify any other residual risks arising from external works performed under the alliance, except for a low risk associated with priority plumbing, its domestic plumbing service established well before the alliance.

In February 2006, 'us' – Utility Services added 'failure to engage stakeholders with regards to external activities' to its risk register. This risk included failure to adequately communicate details of external works to the Department of Treasury and Finance. Risk mitigation activities included quarterly presentations to the department outlining external projects to be tendered for. The department does not consider the scale of external works to be material in terms of the balance sheets of either SEW or the state.

At December 2007, the 'us' – Utility Services risk register listed 12 risks. For each risk, it listed the responsible person, contributing factors, key controls, the residual risk rating and ongoing actions. This audit gathered evidence relating to nine of these 12 risks and found that they have either been adequately mitigated or appropriate mitigation activities were taking place.

Conclusion

SEW, through 'us' – Utility Services management, has been thorough in identifying and mitigating the risks of external works.



Traffic management is a significant component of external works undertaken by Utility Services.

6.6 Has the alliance been reviewed?

In January 2005, the SEW Board approved key terms for the alliance. One of these terms was that SEW would review alliance performance annually, on the anniversary of the alliance's commencement of operations, against pre-agreed SEW objectives. If performance was unsatisfactory, a corrective action plan would be agreed on and the AGB would ensure it was implemented. The alliance agreement that was executed in early April 2005 did not contain this key term¹.

In late April, the SEW Board received a revised schedule of key alliance terms on which the final agreement was based. It also received legal advice about the differences between the previous and revised versions of the key alliance terms. The legal advice noted that the differences were minor amendments and refinements agreed during final negotiations. It did not point out that the requirement for an annual review of the alliance had been deleted from the final terms.

By way of contrast, audit notes that the procurement arrangements of Yarra Valley Water and City West Water:

- include annual reviews, which in the case of Yarra Valley Water can significantly change the amount paid by the retailer to the provider, as well as determining whether the arrangement will continue
- include termination clauses, without financial penalty
- are for shorter periods than is SEW's alliance agreement.

In May 2007, the board asked for a detailed analysis of the present performance status of the alliance. SEW advised that the analysis had been put on hold pending the outcomes of this audit and of a major government review of the metropolitan water retailers.

One measure of how efficiently and effectively the alliance performs as a procurement method is to measure SEW's yearly changes in operations and maintenance costs against those of comparable water retailers, which operate under different procurement models.

In August 2005, the Water Services Association of Australia (WSAA) completed a civil maintenance performance benchmarking study using 2003–04 data. The three retailers made a substantial financial contribution to the study, which benchmarked 15 activities for 19 water utilities in Australia and overseas. In the final report, participants were not identified by company and no metropolitan retailer could compare itself against the others.

¹ This review – of alliance performance – is a different matter to the review of the commercial framework, which is addressed in 6.3 *Has good performance been identified and rewarded?*

In terms of service levels² and cost, the study ranked:

- City West Water at a moderate service level and one of the lowest cost water utilities in the benchmarked group
- South East Water at a high service level and low cost
- Yarra Valley Water at a lower service level and one of the lowest cost water utilities.

WSAA is planning a similar benchmarking study in the near future.

Audit was unable to reliably estimate how all three retailers' operations and maintenance costs have varied since 2003–04, due to the incomparability of data provided by retailers across years. Nevertheless, this exercise has highlighted the importance and benefits of establishing comparable benchmarks to enable future reviews and comparisons.

Conclusion

The SEW Board was not notified when the requirement to review alliance performance annually was deleted from the alliance agreement.

Without formal reviews, SEW is not in a position to demonstrate how efficiently and effectively the alliance is performing as the company's chosen procurement option. This is inappropriate because:

- alliancing is still a relatively new procurement method
- SEW had little previous experience with alliancing
- a 12-year term is much longer than that entered into by the other metropolitan water retailers with their operations and maintenance service providers
- the alliance needs to be appropriately benchmarked.

For these reasons, the alliance should be rigorously reviewed.

There is much to be gained from inter-entity comparisons. As well as encouraging metropolitan water retailers to cooperate to share information about best practice, the retailers could require, as a condition of funding, the WSAA to conduct and report their benchmarking studies in such a way as to enable inter-company comparisons that help retailers assess the effectiveness and efficiency of their chosen procurement options.

Recommendation

- 6.5 That SEW conducts a rigorous and independent review of the efficiency and effectiveness of the alliance as its chosen procurement option, including comparisons with the procurement approaches used by other water retailers.

² These WSAA service rankings utilise different parameters than the Essential Services Commission's published customer service ranking for the three metropolitan retailers for 2003–04.

RESPONSE provided by the Managing Director, South East Water Ltd

South East Water agrees that in addition the annual reviews of the commercial framework and KPIs that are already conducted by South East Water, a holistic review of the alliance is to be undertaken. This is now underway and timely given that the resource intensive activities of responding to the VCEC inquiry and preparing South East Water's Water Plan have recently been completed by the organisation.

Appendix A.

Estimation of operations and maintenance costs savings

South East Water (SEW) expected, on the basis of advice from an alliance consultant and the experiences of other maintenance alliances, that moving from the schedule of rates to an alliance would result in savings of 5 per cent on most items in its operations and maintenance budget. This constituted an expected saving of \$1 million annually.

The audit sought to compare how much SEW spent on operations and maintenance in 2006–07 to what it would have spent had it not terminated the schedule of rates in April 2005 and moved to the alliance.

To calculate what items would have cost in 2006–07 under a schedule of rates, we:

- took the price in the schedule of rates negotiated in 2000 for all the main items of operations and maintenance expenditure
- added the agreed 'rise and fall' index factor to determine the item price paid by SEW between 2000 and June 2005 (noting that the schedule of rates agreement expired in April 2005). Using this index, audit adjusted costs annually to account for labour and material cost increases
- applied an industry-standard inflation factor used by another water retailer to adjust their schedule of rates prices in 2005–06 and 2006–07 because a key component of SEW's rise and fall index ceased publication in 2005–06.

This resulted in an estimated price for all the main items had the schedule of rates continued on the same basis as in 2005 (except for the use of the different index). We then compared that price to the actual price for that item paid by SEW in 2006–07.

We also:

- applied the same methodology to certain items not covered by the schedule of rates by using line items in the operations and maintenance budget, rather than schedule of rates items
- removed items, which by their nature would not have attracted savings under a change to cost-plus-margin (such as electricity and chemicals)
- allowed for cost increases caused by legislative changes relating to traffic management requirements.

The assumptions underlying these adjustments were consistent with an impartial approach to estimating SEW's savings under the alliance agreement.

Appendix A. Estimation of operations and maintenance costs savings

Using this methodology and assumptions, audit estimated that in 2006–07 SEW paid 6.4% less for operations and maintenance work than it would have had the schedule of rates continued on the same basis as in 2005.

Appendix B.

Key aspects of the agreement's commercial framework

Under the alliance agreement, and dependent on whether the works are major capital works or operations and maintenance works, South East Water (SEW) is invoiced monthly and pays the commercial participants:

- approved direct costs
- agreed margin
- gain-share/pain-share.

Direct costs

Direct costs include:

- salary, labour costs and on-costs
- costs of goods, subcontractors, construction plant usage, temporary works, facilities, compliance with statutory requirements, insurance, legal compliance, surplus plant, materials and equipment, travel, training and induction, advertising and community and stakeholder liaison.

The agreement expresses the parties' commitment to ensuring the highest standards of probity and transparency. The parties must maintain complete accounting records (following best practice accounting principles) for up to five years after the expiry of the agreement. These records must record all direct costs incurred in performing the work, and all relevant work documentation.

SEW has the right to inspect, audit or investigate the accounting and other work records. The alliance must fully cooperate with any probity or financial adviser, auditor or investigator appointed by SEW.

Margin

The agreement entitles the commercial participants to a margin (for corporate overhead and normal profit) on their direct costs. For capital works, the margin is fixed at the same rate as the base margin for operations and maintenance work. For operations and maintenance work, the agreement establishes a base margin which is adjusted every four months to reflect the commercial participants' performance. For the period November 2007 to February 2008, the margin was 1.1 per cent over the initial base margin.

Gain-share/pain-share regime

Gain-share is an amount paid by SEW to the commercial participants if they meet or exceed certain benchmarks. Pain-share is an amount paid by the commercial participants to SEW if they fall short of the benchmarks. Gain-share/pain-share arrangements differ for major capital, and for operations and maintenance works.

On completion of major capital works, SEW shares any cost underruns against the target outturn cost (TOC) equally with the consortium. If costs exceed the TOC, then the cost overrun is funded 50 per cent by SEW and 50 per cent by the commercial participants, the latter to a maximum of their margin.

The consortium's margin on operations and maintenance works is adjusted every four months according to performance against 16 key performance indicators.

Each KPI is scored on a continuum from 1 to 100. Allocated scores are then classified as either a 'poor performance', 'business as usual' or 'excellent' performance level which is quantified in an appropriate unit, such as dollars, minutes or per cent. Each KPI is weighted. Rules and formulas are used to calculate the margin: for example, if two KPI results are less than 'business as usual' performance, then the margin is reduced to 80 per cent of the calculated margin per cent; and if three are less than business as usual, there is a 50 per cent reduction.

Figure B1 shows the KPIs.

Figure B1
'us' – Utility Services key performance indicators

Theme	KRA	KPIs
Financial	Actual cost versus benchmark cost	Burst main; service pipe; sewer stoppage; house connection branch / reticulation digout; kerbside pump station; water pump station
	Budget performance	Budget performance
Customer	System availability	Average duration of unplanned interruptions; stoppages restored within four hours; rework
	Customer satisfaction	Customer survey; customer contact
Environment and social	Alliance legacy	Safety; alliance culture / employee satisfaction
	Environment impact	Sewer stoppages / spills; burst main travel time

Source: South East Water Ltd.

Before finalising the alliance agreement, SEW set the target range for each KPI by:

- considering current performance and optimum performance levels
- negotiating with the preferred respondents to identify the best possible price or service
- by generally making targets more challenging than then-current practice.

The 'business as usual' target in the commercial framework provided to the board on 31 January 2005 was significantly more challenging to the consortium than then-current practice for 11 of the 15 KPIs. The customer survey target was lower, the customer contact target was the same and two legacy targets did not have a current benchmark.

The alliance manager uses methods approved by the Alliance Governance Board (AGB) to score the consortium's performance against each KPI, multiplies each score by the key result area weighting and adds the scores for a total performance score. The score is included in the four-monthly performance reports provided to the AGB, which determines the margin to be paid in line with formulas in the agreement.

Appendix C.

Development of the target outturn cost for capital works

In 2006–07, South East Water (SEW) had total expenditure on capital works of \$69.1m. Of this amount, \$30.9m (or 45 per cent) was undertaken through the alliance.

The remainder was:

- design work done internally (\$6.1m)
- work on three-year contracts (outside the alliance agreement with other contractors) for water and sewer renewal (\$23m)
- capital works projects outside the scope of the alliance (\$5.6m)
- land purchases (\$3.5m).

For all capital works conducted through the alliance, SEW's Planning Branch:

- identifies the need for the work
- conducts a strategic analysis of the best way to address the need
- does a preliminary design on the preferred option.

'us' – Utility Services then prepares a detailed design (which is reviewed by the planning branch) and uses it to prepare a cost estimate (known as the target outturn cost, or TOC). The alliance agreement states SEW's expectation that the TOC and TOC documentation will be developed on the basis that all costs will, to the greatest extent practicable, be competitively market tested. Depending on the type of work, 'us' – Utility Services does this by:

- preparing a quote using its own labour, contractors or a combination of the two; then adding a risk margin and/or
- obtaining one or more quotes from contractors and/or
- having a consultant price the work.

Where 'us' – Utility Services offers its unique compact pipe technology for rising main renewal, it demonstrates competitiveness by also preparing a quote for digging out and replacing the main.

'us' – Utility Services then recommends a solution to SEW, which can have the work re-estimated either by consultants or by its staff. Finally, SEW uses the TOC as the basis of the project budget submitted for board approval.

The 'us' – Utility Services quote enables it and SEW to understand direct costs and risk; and also enables an informed discussion with contractors about all aspects of job costing.

Appendix C. Development of the target outturn cost for capital works

SEW usually awards the work to 'us' – Utility Services if it provides the lowest quote (comprising costs, margin and risk allowance). If not, the work will be awarded to a contractor. 'us' – Utility Services supervises the contractor and is paid the full capital works margin provided in the agreement.

Appendix D.

Estimation of capital works cost savings

South East Water (SEW) expected that the alliance would result in savings on capital works projects.

Since the inception of the alliance, 27 capital works projects have been finalised to the point of making the final gain-share or pain-share calculation. For each project, audit compared the actual total direct cost, margin and gain-share/pain-share to an amount audit calculated, based on various assumptions that the project would have cost had the alliance not existed. The assumptions were that:

- use of a consortium members' agreement had almost eliminated project variations. Audit examined project files and determined that there had been one variation, in which case the assumption was not applied. Audit determined the size of the factor to apply by calculating total variations for 2004–05, the one year for which complete variations data was available
- subcontractor margins had fallen. Audit validated this assumption and estimated the size of the factor by interviewing several 'us' – Utility Services project staff and using commercial-in-confidence evidence from a 'us' – Utility Services subcontractor
- the consortium's national buying power reduced margins on some materials. This was confirmed using commercial-in-confidence information to verify the consortium's cost savings on these materials
- SEW would have to pay a market margin to a consortium member for the use of its compact pipe technology. Audit accessed commercial-in-confidence information about the difference between the margins and costing methodologies applicable to SEW and to the market to confirm this
- 'us' – Utility Services reduces the higher margin that a specialist supplier of mechanical and electrical equipment would have charged a subcontractor, and also avoids a margin on that margin that the contractor would have charged SEW. Audit confirmed this is because a consortium member supplies mechanical and electrical control equipment directly to 'us' – Utility Services.

These factors apply differently, and projects were also grouped, according to whether the project was performed:

- entirely using 'us' – Utility Services direct labour
- entirely using contractors
- using a combination of the two methods.

All projects were further grouped according to whether the mechanical and electrical component was performed by ‘us’ – Utility Services or not.

For projects performed with ‘us’ – Utility Services direct labour, the relevant factors were applied to the direct cost of the next lowest quote for the work. For projects performed by a subcontractor, the relevant factors were applied to the actual direct costs incurred for the project.

Projects that were performed by a combination of ‘us’ – Utility Services direct labour and subcontractors were further grouped by:

- projects that used compact pipe
- pipeline projects
- non-pipeline projects, such as sludge removal or structure projects.

Projects that used compact pipe technology had a market margin applied to the total direct cost of the project, working on the assumption that the consortium member would have won the job using compact pipe, but outside of the alliance arrangements. Pipeline projects had a cost saving factor applied, on the assumption that the consortium member can source pipe at a lower cost than the market rate.

Where there was a choice to be made in the application of an assumption, the conservative option was chosen. Consequently, audit considers the total estimate to be the minimum saving that resulted.

On the basis of the assumptions made, audit estimated that SEW has paid about 6.5% less for the completed capital works projects undertaken by ‘us’ – Utility Services than it would have had the alliance not existed.

Auditor-General's reports

Reports tabled during 2007-08

Report title	Date tabled
Program for Students with Disabilities: Program Accountability (2007-08:1)	September 2007
Improving our Schools: Monitoring and Support (2007-08:2)	October 2007
Management of Specific Purpose Funds by Public Health Services (2007-08:3)	October 2007
New Ticketing System Tender (2007-08:4)	October 2007
Public Sector Procurement: Turning Principles into Practice (2007-08:5)	October 2007
Discovering Bendigo Project (2007-08:6)	November 2007
Audits of 2 Major Partnership Victoria Projects (2007-08:7)	November 2007
Parliamentary Appropriations: Output Measures (2007-08:8)	November 2007
Auditor General's Report on the Annual Financial Report of the State of Victoria, 2006-07 (2007-08:9)	November 2007
Funding and Delivery of Two Freeway Upgrade Projects (2007-08:10)	December 2007
Results of Financial Statement Audits for Agencies with 30 June 2007 Balance Dates (2007-08:11)	December 2007
Local Government: Results of the 2006-07 Audits (2007-08:12)	February 2008
Agricultural Research Investment, Monitoring and Review (2007-08:13)	February 2008
Accommodation for People with a Disability (2007-08:14)	March 2008
Records Management in the Victorian Public Sector (2007-08:15)	March 2008
Planning for Water Infrastructure in Victoria (2007-08:16)	April 2008
Delivering Health SMART—Victoria's whole-of-health ICT strategy (2007-08:17)	April 2008
Victoria's Planning Framework for Land Use and Development (2007-08:18)	May 2008
Planning Permit Application: Assessment Checklist (2007-08:19)	May 2008
Planning Scheme Amendment: Assessment Checklist (2007-08:20)	May 2008
Patient Safety in Public Hospitals (2007-08:21)	May 2008
Project Rosetta (2007-08:22)	May 2008
Results of Audits for Entities with other than 30 June 2007 Balance Dates (2007-08:23)	May 2008

The Victorian Auditor-General's Office website at <www.audit.vic.gov.au> contains a more comprehensive list of all reports issued by the Office. The full text of the reports issued is available at the website. The website also features 'search this site' and 'index of issues contained in reports and publications' facilities that enable users to quickly identify issues of interest that have been commented on by the Auditor-General.

Availability of reports

Copies of all reports issued by the Victorian Auditor-General's Office are available from:

- Information Victoria Bookshop
505 Little Collins Street
Melbourne Vic. 3000
AUSTRALIA

Phone: 1300 366 356 (local call cost)
Fax: +61 3 9603 9920
Email: <bookshop@dvc.vic.gov.au>

- Victorian Auditor-General's Office
Level 24, 35 Collins Street
Melbourne Vic. 3000
AUSTRALIA

Phone: +61 3 8601 7000
Fax: +61 3 8601 7010
Email: <comments@audit.vic.gov.au>
Website: <www.audit.vic.gov.au>