New South Wales Auditor-General's Report
Performance Audit

CBD and South East Light Rail Project

Transport for NSW

audit office
OF NEW SOUTH WALES

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In accordance with section 38E of the *Public Finance and Audit Act 1983*, I present a report titled **CBD and South East Light Rail Project: Transport for NSW.**

Margaret Crawford
Auditor-General
30 November 2016

Contents

Executive Summary

The Central Business District and South East Light Rail (CSELR) project is a large public transport infrastructure project. Its current estimated capital cost is $2.1 billion in 2014 dollars, excluding finance, operation and maintenance costs.

The project has attracted much public interest and has economic, environmental and social impacts for the State. Chapter 1 sets out the project in detail.

This audit assessed how well Transport for NSW (TfNSW) ensured that planning and procurement for the CSELR project achieved value for money within the parameters set by the NSW Government. These included timeframes for planning, procurement and delivery.

We examined the period from the development of the Sydney Light Rail Strategic Plan, which started in August 2011 and was published in October 2012, through to the finalisation of the major construction contract in February 2015.

Conclusion

The CSELR project suffered many of the same problems we reported for WestConnex, Large construction projects and the Albert 'Tibby' Cotter Walkway.

The established assurance framework provided that TfNSW undertake the assurance reviews of the CSELR project. However, this approach did not provide the independent assurance required for such a major infrastructure project. In addition, the planning and governance arrangements, while approved by the NSW Government, skipped important assurance steps. And tight timeframes meant planning was inadequate and normal governance systems were not initially in place. This contributed to underestimating costs and overestimating benefits.

As a result, between 2011 and 2014, TfNSW did not effectively plan and procure the CSELR project to ensure it maximised value for money for New South Wales.

TfNSW continues to manage problems created because of these shortcomings. Above all, it did not finalise key third party agreements that affected the design and scope of works before issuing tenders and signing the major public private partnership (PPP) contract. This has increased the project's complexity and risks, and reduced value for money.

TfNSW is on track to deliver the CSELR project. But it will come at a higher cost and with lower benefits than expected in the approved business case. The project benefit-to-cost ratio decreased from 2.4 to 1.4 by the time the NSW Government awarded the PPP contract. As this remained a positive result, the project still went ahead.

Our audit found that TfNSW's due diligence and probity in the procurement process was detailed and met NSW Government requirements.

Since the planning stages, TfNSW improved the project's governance and assurance framework. It implemented rigorous monthly assessments to monitor risks that may affect the timeframe and budget. There is also stronger external oversight by the CSELR project Advisory Board and Infrastructure NSW. TfNSW advised that it has progressively finalised third party agreements, with one outstanding in October 2016.

More generally, since our reports on WestConnex and Large construction projects, the NSW Government has strengthened assurance processes for infrastructure projects. Infrastructure NSW now independently administers risk-based assurance reviews for capital projects, and advises the NSW Government of any risks so they can be addressed.

From this point, TfNSW should finalise design and scope issues as soon as possible and continue robust monitoring and reporting of the CSELR project. But our more important recommendations centre around the need to apply the lessons learned from the CSELR project to large capital projects in the future.

Key findings

Planning and procurement did not ensure the best value outcome for the State

Between 2011 and 2014, Infrastructure NSW delegated assurance reviews of major transport projects, including the CSELR project, to TfNSW using the TfNSW Investment Gating and Assurance Framework. Despite this delegation being provided for in the assurance framework at the time, this approach did not provide the independent assurance required for such a major project.

TfNSW followed project-specific planning and procurement processes for the CSELR project. The NSW Government approved these processes because of the project's significance and to meet its preferred timelines.

However, these processes departed from the Major Project Assurance Framework and TfNSW's own Investment Gating and Investment System by not requiring a preliminary business case and two early independent gateway assurance reviews.

These systems are designed to provide assurance that projects remain viable throughout their life cycle. They are flexible, but they require agencies to make the case that a government commitment will:

- be cost-effectively delivered
- achieve maximum benefits
- have affordable operating costs.

By departing from the established process, the CSELR project suffered similar problems to those we reported for other infrastructure projects. Common problems include tight timeframes without justification, project scope defined too narrowly, underestimated costs and overestimated benefits.

TfNSW pursued tight project timelines for the CSELR project without fully documenting its consideration of the impact on costs, risks and benefits, and it presented a business case with an inadequate economic appraisal.

There were also problems specific to the CSELR project. Internal and external reviews repeatedly drew attention to the need to finalise the project's design and scope of works. Yet TfNSW did not finalise key third party agreements that would affect the design and scope of works before tendering or before signing the two main contracts. This added to the project's complexity and risk, and reduced value for money for the State.

TfNSW advised us that:

- project contingency funds will be sufficient to cover any contract variations
- such funds have been 'ring-fenced' in the project budget
- scope changes will be managed effectively within the existing contingency allowance.

Some of the project contingency funds have already been applied to these changes. But contingency funds also need to cover unknown risks that may emerge during construction and delivery. TfNSW will need to closely monitor risks to the project timeframe and budget, with independent oversight by the project's Advisory Board and Infrastructure NSW.

Costs are higher and benefits are lower than the approved business case

In November 2013, the project business case summary estimated the CSELR would cost $1.6 billion. At that time, TfNSW still needed to address outstanding issues, such as:

- fully assessing capital costs
- ensuring the economic appraisal was realistic
- negotiating traffic management assumptions with Roads and Maritime Services (RMS)
- finalising third party agreements.

By the time TfNSW signed the main works PPP contract in December 2014, the capital budget had increased by $549 million to $2.1 billion. Some of this increase was due to scope changes and planning modifications. However, most – $517 million – was caused by mispricing and omissions in the business case.

Similarly, CSELR project benefits decreased from the business case estimate of $4.0 billion to an estimate of $3.0 billion in December 2014. This was mainly due to increases in travel time assumptions flowing from changes in project scope.

These changes meant the benefit-to-cost ratio decreased from 2.4 to 1.4. This was still a positive result and the project went ahead.

Probity and due diligence processes met NSW Government requirements

Agencies must follow probity and due diligence requirements to show their project procurement is fair and objective. These are set out in NSW Government procurement policies, and in national and state PPP guidelines.

Overall, TfNSW met these requirements for the CSELR project. It adopted a detailed probity framework. An independent probity advisor concluded that TfNSW's evaluation process for selecting the two main contractors was fair and had due regard to probity. TfNSW also applied due diligence to the PPP bidders, consistent with its guidelines for projects of this kind.

At the same time, the early works package should have been included in a key gateway review. The tender evaluation process was comprehensive. However, TfNSW had used incorrect assumptions in the Public Sector Comparator (PSC) benchmark to assess value for money. It is normal practice for the PSC to be updated as a project evolves. TfNSW presented the first PSC calculation with the CSELR project business case. It then updated the PSC on a number of occasions to reflect changes in the project costs and benefits. In October 2014, TfNSW made the final adjustment to the PSC because a key assumption was incorrect. The incorrect assumption was that management effort and associated contract interface risks would be the same for a traditional delivery model as a PPP.

It is unfortunate that TfNSW discovered the incorrect assumption in the PSC so late in the process, and after tenders for the PPP were evaluated. National PPP guidelines permit the PSC to be adjusted after bids are received in certain circumstances, including where changes to assumptions are required. We note that external reviews found that the PSC update process was consistent with the national PPP guidelines and did not unfairly impact proponents.

We found no evidence that the PPP contract TfNSW entered into will not be delivered. TfNSW included provisions in this contract to mitigate the risk to the NSW Government that the contractor cannot fully deliver against its obligations.

Recommendations

1. For the CSELR project, Transport for NSW should, by December 2016:
   a) finalise outstanding design and scope issues
   b) ask the project Advisory Board to confirm that controls over the budget and use of contingency funds are consistent with NSW Government decisions and NSW Treasury guidelines
   c) update and consolidate information about project costs and benefits and ensure that it is readily accessible to the public
   d) ensure the Sydney Light Rail Project Director provides six-monthly briefings to the TfNSW Audit and Risk Committee.
2. For all capital projects, Transport for NSW should comply with the Infrastructure Investor Assurance Framework.

Introduction

Context

Capital works projects are a major investment and financial risk for the State. The NSW Government has allocated $41.5 billion over the next four years – more than half of its infrastructure budget – to transport-related projects. Transport for NSW (TfNSW) will deliver many of these.

Robust planning and procurement are essential to ensure projects deliver public benefits and achieve value for money. They also underline the importance of learning from past experience and following best practice guidelines for project planning, procurement, delivery and assurance.

In March 2011, the NSW Government, then in opposition, announced during the election campaign that it wanted to build a light rail system through the CBD. In December 2012, the government chose its preferred route from several options in the Sydney Light Rail Strategic Plan.

TfNSW is responsible for planning, procuring and delivering the Central Business District and South East Light Rail (CSELR) project. It must also ensure the project is delivered cost-effectively to maximise the benefits within parameters the NSW Government set in 2012.

This is our fourth performance audit report on construction projects that NSW Government agencies planned and procured during this period. Our previous reports – WestConnex: Assurance to the Government (December 2014), Large construction projects: Independent assurance (May 2015), and Albert 'Tibby' Cotter Walkway (September 2015) – informed the context in this report.

CSELR project at a glance

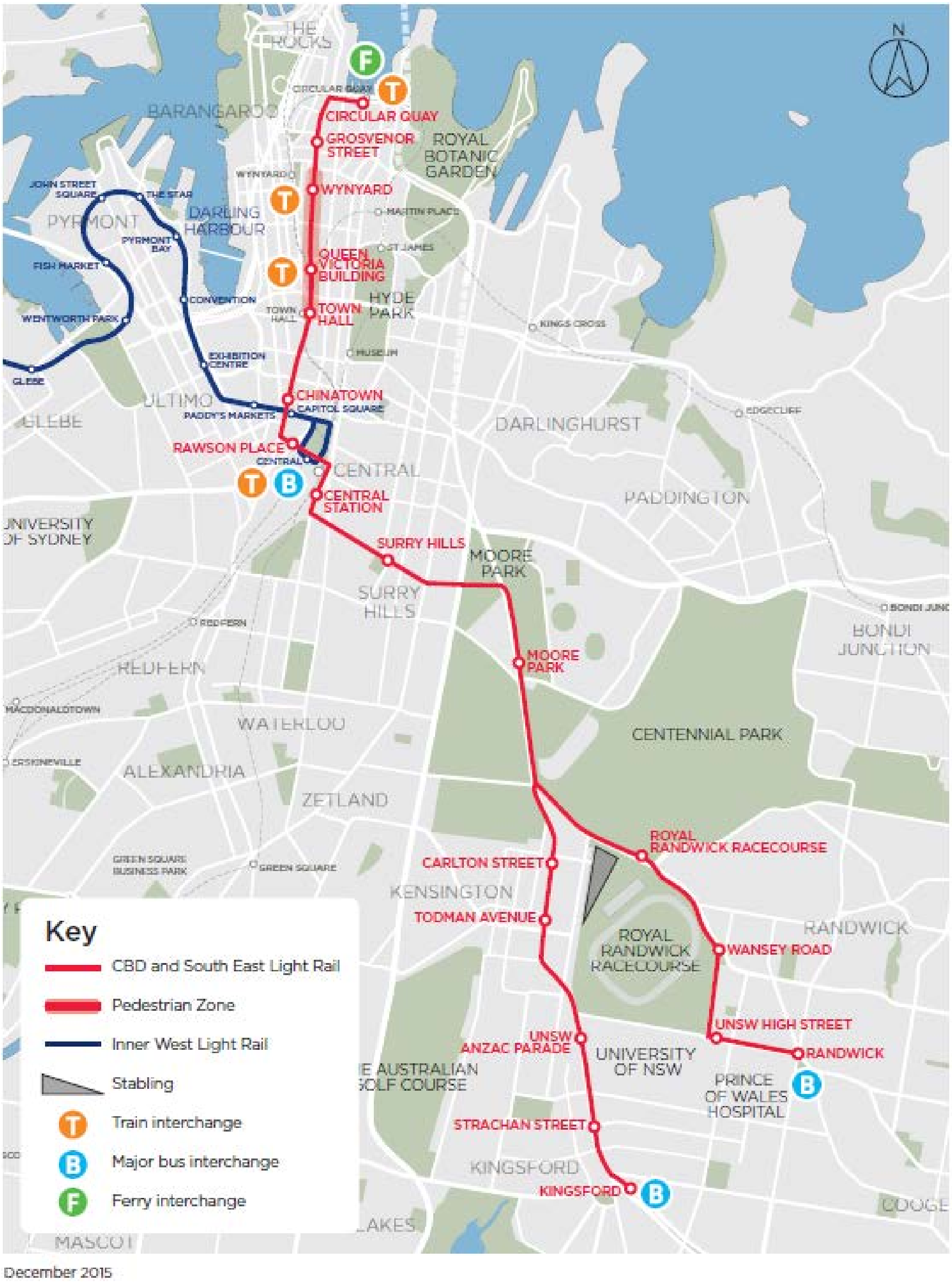
The CSELR project involves constructing a new light rail service that will run from Circular Quay along George Street to Central Station, through Surry Hills to Moore Park, then to:

- Kensington via Anzac Parade
- Randwick via Alison Road and High Street.

Exhibit 1 shows the route for the light rail.

Exhibit 2 captures the main project stages from planning and procurement to construction and delivery.

Exhibit 1: CSELR route



December 2015

Source: Transport for NSW 2015.

Exhibit 2: CSELR project development

Project planning

2011

March: The NSW Government committed to building light rail in the CBD along George Street, and to feasibility studies into building light rail to the University of NSW and University of Sydney.

August: TfNSW started developing a Sydney Light Rail Strategic Plan.

2012

November: TfNSW completed the Strategic Plan, identifying six shortlisted routes along the light rail corridors announced in 2011.

December: The NSW Government announced its preferred route through the CBD to Randwick and Kingsford.

2013

November: The NSW Government announced the business case details for the CSELR project, with an estimated capital cost of $1.6 billion and with almost $4.0 billion worth of benefits.

Procurement began for the two major construction contracts.

Project procurement

2014

June: TfNSW awarded the contract for essential early works.

October: The NSW Government announced its preferred bidder, Connecting Sydney (later renamed ALTRAC Light Rail), to design, construct, operate and maintain Sydney's light rail networks as part of a PPP.

December: The PPP contract was signed. The NSW Government announced modifications to the CSELR project and an increased capital cost budget of $2.1 billion.

Project delivery / construction

2015

February: The project and financing agreement of the PPP contract between TfNSW and ALTRAC Light Rail (financial close) was signed.

July: ALTRAC Light Rail took responsibility for operating and maintaining light rail services on the Inner West Light Rail as part of the PPP contract for the CSELR.

October: Major construction started.

2016–19

Major construction is due to be completed in 2018, with passenger services starting in early 2019.

Source: Audit Office research 2016.

See Appendix 2 for a detailed chronology of the CSELR project development.

About the audit

Our audit examined whether TfNSW ensured that:

- project planning and procurement was robust
- changes to the project scope and cost were justified and represented best value for money
- appropriate probity and due diligence was undertaken in the tendering process.

We audited TfNSW's activities against NSW Government capital project planning and procurement policies and guidelines to assess whether it applied appropriate processes.

The processes that apply to the CSELR project include:

- preparing preliminary and final business cases in line with NSW Treasury circulars and guidelines
- initiating independent assurance reviews (known as gateway and major project assurance reviews) at key decision points in a project's life cycle, as shown in Appendix 3
- reporting to, and being monitored by, NSW Treasury and Infrastructure NSW
- complying with the NSW Government procurement policy to demonstrate value for money in delivering government services.

The audit did not examine the merits of NSW Government policy objectives or the merits of project-related decisions. We also did not review the appropriateness of the selected technical solution for the CSELR.

Appendix 4 outlines the audit scope and focus, and lists the relevant policies and guidelines.

Key Findings

1. Planning and procurement

There were significant problems with the way TfNSW managed the CSELR project between 2011 and 2014. These problems increased the project's complexity and risk, and reduced the value-for-money outcomes for the State.

To begin with, the established assurance framework provided that TfNSW undertake the assurance reviews of the CSELR project. However, this approach did not provide the independent assurance required for such a major infrastructure project. The CSELR project also departed from the planning process in the State's Major Projects Assurance Framework. This meant TfNSW skipped two mandatory gateway reviews that could have forced it to resolve deficiencies in the project's governance arrangements and economic appraisal.

These problems were similar to those we found in our previous reports on WestConnex and Large construction projects. In response, the NSW Government has now strengthened the role of Infrastructure NSW and the Independent Investment Assurance Framework. The CSELR project adopted this framework in mid-2015.

Second, the governance arrangements did not initially reflect the complexity and significance of the project. During planning, there was no dedicated project team and the distinction between commissioning and delivery roles was unclear. TfNSW has now established a dedicated project team and an independent Advisory Board.

Finally, inadequate planning and tight timeframes meant third party agreements and project scope were not finalised before starting the tender process or before signing the main works PPP contract. Scope uncertainty may have increased bid prices and exposed the project to ongoing cost increases.

TfNSW has been progressively finalising the scope of works, and is closely monitoring risks to the timeframe and budget. Some of the project contingency funds have already been applied to changes in the scope of works as a result of TfNSW finalising third party agreements. But contingency funds also need to cover unknown risks that may emerge during construction and delivery. TfNSW considers the current project contingency can cover any further scope changes.

Recommendations

1. For the CSELR project, Transport for NSW should, by December 2016:
   a) finalise outstanding design and scope issues
   b) ask the project Advisory Board to confirm that controls over the budget and use of contingency funds are consistent with NSW Government decisions and NSW Treasury guidelines
   d) ensure the Sydney Light Rail Project Director provides six-monthly briefings to the TfNSW Audit and Risk Committee.

2. For all capital projects, Transport for NSW should comply with the Infrastructure Investor Assurance Framework.

All agencies must show how they achieve value for the public money they spend. For major works such as the CSELR project, agencies should show how they will achieve the objectives and goals of a policy commitment in a cost-effective way. This should be set out in the project's business case, implementation plans and procurement model.

1.1 Project planning and assurance

There was no independent assurance review of the project business case

TfNSW managed the gateway assurance review of the CSELR project business case. It was within its authority to do so because, between 2011 and 2014, Infrastructure NSW delegated assurance reviews of major transport projects to TfNSW using the TfNSW Investment Gating and Assurance Framework.

Despite this delegation being provided for in the assurance framework at the time, this approach did not provide the independent assurance required for such a major project. Our previous report on Large construction projects in 2015 found TfNSW reviews were robust and comprehensive, but not sufficiently independent.

Independent gateway reviews complement good internal controls. They provide a fresh set of eyes and arm's length independence not available from even the best internal controls. This is a key principle of the NSW Government's Major Projects Assurance Framework.

In 2015, the NSW Government strengthened this assurance process. Infrastructure NSW now independently administers the Infrastructure Investor Assurance Framework for capital projects, which outlines a risk-based approach to project assurance. This includes:

- gateway reviews and health checks in line with the project risk profile
- advice to the NSW Government of any risks.

Two mandatory gateway assurance reviews were skipped

In 2011, the NSW Government endorsed the Major Projects Assurance Framework (MPA Framework). This set mandatory independent assurance reviews at all seven stages of a capital project's life cycle, along with regular reporting to Cabinet.

However, the project-specific planning process the NSW Government approved for the CSELR project departed from this framework. While TfNSW's process addressed many aspects of the MPA framework, the CSELR project suffered from:

- a lack of independence in assurance reviews
- tight project timelines without justification
- poor assessment of costs and benefits
- weak project governance in the planning stages.

We found many of the same problems in our reports on WestConnex, Large construction projects and the Albert 'Tibby' Cotter Walkway.

Normally, after an initial project justification gateway assurance review, agencies must complete two steps before progressing to a final business case:

- a preliminary business case
- a strategic assessment gateway review.

The NSW Government did not require TfNSW to complete these steps for the CSELR project.

Instead, TfNSW set out to deliver the NSW Government policy to build a light rail network in the CBD. In August 2011, it started developing the Sydney Light Rail Strategic Plan (Strategic Plan) to assess light rail routes in the CBD from Circular Quay to Central railway station, and on to Randwick, Kingsford and the University of Sydney.

In December 2012, the NSW Government announced its preferred light rail route from six options in the Strategic Plan. TfNSW then based its final business case on the selected route.

TfNSW considers that the Strategic Plan addressed NSW Treasury requirements for a preliminary business case. And this plan did outline various route options and a bus alternative. However, it did not include elements that are normally part of a preliminary business case, such as the:

- affordability of the project and the justification for Budget priority
- rigorous analysis of options, costs, benefits, risks and sustainability issues
- proposed governance framework.

The two missed assurance reviews would have prompted TfNSW to resolve deficiencies in the economic appraisal and governance arrangements that the final business case retained.

Tight timeframes increased project risk

TfNSW planned the CSELR project to meet the NSW Government's commitment that work would start in 2014 and include a public private partnership (PPP) arrangement. TfNSW met these timeframes to award two main contracts, including the PPP.

However, meeting such a tight timeframe meant an inadequate business case, poor governance in the planning stage, and uncertain scope during tendering. These combined to increase the project's complexity and risk, and reduce value for money for the State.

Assessment of costs and benefits was known to be poor but not addressed

Next, the economic appraisal with the final business case underestimated costs and overestimated benefits. It did not adequately account for significant costs and disadvantages. This improved the reported benefit-to-cost ratio, which was assessed as 2.4 (excluding wider economic benefits) when the NSW Government announced the project. Exhibit 3 sets out key issues with the appraisal.

Exhibit 3: Issues with the CSELR project economic appraisal

Issue	Description
Underestimated some capital costs	TfNSW underestimated the capital costs for utilities, traffic management, and contractors' indirect costs. In August 2013, TfNSW commissioned a peer review of the capital cost plan which found it was at the lower end of the estimated range for projects of this type. However, the review noted the total risk allowance and client cost allowance should compensate. Similarly, TfNSW's Program Management Office found that the contractors' indirect costs and design cost estimates appeared low.
Did not quantify disruption impacts of construction	TfNSW did not quantify unavoidable disruption impacts of building the CSELR. While the economic appraisal and EIS acknowledged disruption impacts, they were limited to a qualitative description and an outline of mitigation strategies. Construction of the CSELR has begun and will continue until March 2019. This will significantly affect road users.
Had an optimistic assessment of wider economic benefits	TfNSW expects the CSELR project will generate a range of wider economic impacts, including higher density development. The final business case notes it will increase the attractiveness of living and working along the route, which will in turn increase demand for residential and commercial floor space and attract higher density development. While the economic appraisal included these benefits, it did not include disadvantages that may result.
Did not adequately define costs of related transport projects	The success of the CSELR project depends on the delivery of several other key projects. The economic appraisal included the scope, costs and benefits for two of these projects – the inner Sydney bus network reconfiguration and the Randwick urban activation precinct. But it did not include the extra cost to TfNSW of managing and coordinating the integration of these projects. The final business case gateway review in September 2013 also found that the boundaries between related projects were unclear.

Issue	Description
	For example, TfNSW did not define the costs for road works needed to realise the full benefits of the CSELR project.

Source: Audit Office research 2016.

TfNSW was aware of some of these issues, but did not adjust the final business case enough before submitting it for approval. After it was approved, TfNSW still needed to address outstanding issues such as refining the economic appraisal and governance structure, and finalising third party agreements.

Some of these issues have since increased the project cost significantly. We discuss this further in Chapter 2.

TfNSW strengthened governance after final business case was approved

Further, the initial project governance framework for the CSELR project was not effective. There was no dedicated project team or clear distinction between commissioning, assurance and delivery roles.

During the project planning stage, decision-making accountability for the project rested with a Deputy Director-General of TfNSW. He was the nominated CSELR Project Sponsor but was also responsible for delivering many other major transport projects.

While this is not unusual for TfNSW projects in the concept stage, there is an inherent conflict in not separating the commissioning (Project Sponsor) and delivery (Project Director) roles for a project of this scale.

The Sponsor's role is to define the outcomes and quality required to meet broader government and organisation objectives. The Sponsor also monitors progress and evaluates results. If the commissioning and delivery roles are combined, there may be a temptation for the Sponsor/Director to define outcomes and quality according to what s/he is able to deliver, rather than what will meet objectives. The assessment of progress and results is similarly conflicted.

We note TfNSW has since addressed this concern. After the NSW Government approved the final business case, TfNSW consulted the Department of Premier and Cabinet, NSW Treasury and Infrastructure NSW on an appropriate governance model. An independent Advisory Board was appointed from January 2014. The Board provides assurance and strategic oversight of the procurement and delivery stages so there is an independent, critical review of how TfNSW is managing the CSELR project.

In April 2015, the Secretary of TfNSW also strengthened project management. He set up a dedicated delivery office for the project, with the Project Director reporting directly to him. Ideally, this governance structure should have been in place during planning and business case development.

We also note that in mid-2015, Infrastructure NSW strengthened its assurance role to:

- conduct regular health checks of the project
- administer gateway reviews at key stages in line with the Infrastructure Investor Assurance Framework
- report monthly to the NSW Government.

While these processes all represent good practice, putting them in place before the business case was approved would have strengthened planning and helped to maximise value for money.

1.2 Project risks

Tight timing in the planning process also increased the risks of scope creep. TfNSW signed the two main contracts before it finalised key third party agreements, so the project design and scope of works were not yet complete.

Scope uncertainty increased the risks to obtaining best value pricing

In the final business case, TfNSW noted third party agreements needed to be in place to mitigate the risk of scope creep. Before the two main contracts were awarded, internal and external reviews repeatedly drew attention to the need to finalise agreements with stakeholders such as utility providers and local councils to complete the project's design and scope of works.

However, we found TfNSW did not finalise agreements with 12 key stakeholders before starting the tender process for the main works PPP contract on 7 March 2014. It told bidders it would finalise the agreements and update the scope of works halfway through the request for proposal (RFP) consultation period. This had not happened when tenders closed on 11 July 2014.

It also signed the contract for the early works package, noting the risk of scope creep and the cost increases that might occur due to issues that had not been finalised.

TfNSW was responsible for resolving any scope uncertainty to get the best outcome from a competitive RFP process. It did not meet this responsibility. As a result, we cannot assess the extent to which bidders may have included risk-pricing in their bids to compensate for this uncertainty.

Put simply, bid prices may have been higher than if the scope of works had been finalised before tendering.

Ongoing changes in scope continue to increase risk and complexity

TfNSW advised it has been finalising third party agreements since the two main contracts were signed. At the time of writing this report, only one agreement remains unresolved. However, negotiations are continuing with the selected contractors over scope changes. This has increased complexity as TfNSW and the contractors have had to divert resources to requesting, assessing and negotiating design and scope of works changes in contract modifications.

TfNSW renegotiated aspects of the early works managing contract as changes in scope occurred. But because the contract had been awarded, there was reduced pressure on the contractor to offer best value prices for new or revised elements.

TfNSW acknowledges that after appointing the contractor, there was no longer any competitive tension to achieve value for money.

The PPP contract allows both TfNSW and the contractor to propose modifications as the project progresses. Where TfNSW does so, it assesses the value for money of the contractor's estimated price before confirming the change. The PPP contract also allows the contractor to claim reimbursement if the cost to deliver a contract item exceeds its estimate due to circumstances outside its control.

For some of the agreements finalised after the PPP contract was awarded, TfNSW is waiting for the PPP contractor to assess the impacts of requests to modify the design and scope of works. The large number of unresolved scope issues is unusual for a PPP contract.

TfNSW and Advisory Board are monitoring contingency

TfNSW advised us that:

- project contingency funds will cover any contract variations
- such funds have been 'ring-fenced' within the project budget
- scope changes will be managed within the existing contingency allowance.

TfNSW closely monitors risks that could affect the timeframe and budget, with independent oversight by the Advisory Board and Infrastructure NSW. TfNSW presents a register of modifications and contractor claims to the Advisory Board. It also presents a quantified risk and contingency management update to provide evidence there is enough contingency to manage scope risk. In February 2016, TfNSW reported to the Advisory Board that it had received 25 modification requests.

At the February 2016 Advisory Board meeting, the TfNSW contingency update reported it is 91 per cent confident it will deliver the CSELR project within the cost estimate of $2.1 billion. TfNSW advised that it now knows the design and scope changes from the finalised third party agreements, and has applied some of the project contingency funds to these changes.

Of course, contingency funds also need to cover unknown risks that may emerge during construction and delivery.

2. Project scope, costs and benefits

In November 2013, the CSELR business case estimated the project would cost $1.6 billion. The budget rose $549 million to $2.1 billion by the time TfNSW signed the main works PPP contract in December 2014.

While part of this increase was due to scope changes and planning modifications, $517 of the $549 million increase was caused by mispricing and omissions in the business case.

At the same time, the project benefits had decreased from the 2013 business case estimate of $4.0 billion to an estimated $3.0 billion in December 2014. This was mainly due to increases in travel time assumptions.

These changes reduced the project's benefit-to-cost ratio from 2.4 to 1.4, excluding wider economic benefits. The project still went ahead because the ratio remained positive. However, TfNSW should have updated the business case and conducted an independent gateway review to maximise transparency and confirm value for money.

Recommendations

1. For the CSELR project, Transport for NSW should, by December 2016:
    c) update and consolidate information about project costs and benefits and ensure that it is readily accessible to the public.
2. For all capital projects, Transport for NSW should comply with the Infrastructure Investor Assurance Framework.

Our audit reviewed what generated changes in the project scope, costs and benefits, and whether the changes were justified and reasonably foreseeable. We also looked at whether TfNSW reassessed the economic appraisal to justify proceeding with the project.

2.1 Changes to the project scope, cost and benefits

The tender process led to changes in project scope

Some of the cost increases for the CSELR project were caused by changes in project scope that emerged from the tender process.

In February 2014, the Minister for Transport announced a shortlist of three bidders would be invited to tender for the PPP contract. In line with normal practice for major construction projects, TfNSW issued the RFP based on a reference design and scope of works. However, bidders were encouraged to innovate and improve on this design.

Two bids met the assessment criteria, and the successful bidder proposed a different design and scope from the reference design. TfNSW concluded that these changes aligned with project requirements and provided a better technical solution.

The design changes announced in December 2014 included:

- revising platform lengths to support longer vehicles (67 metres instead of 45 metres)
- redesigning several stops

- switching technologies for the wire-free section
- removing a proposed stop at World Square.

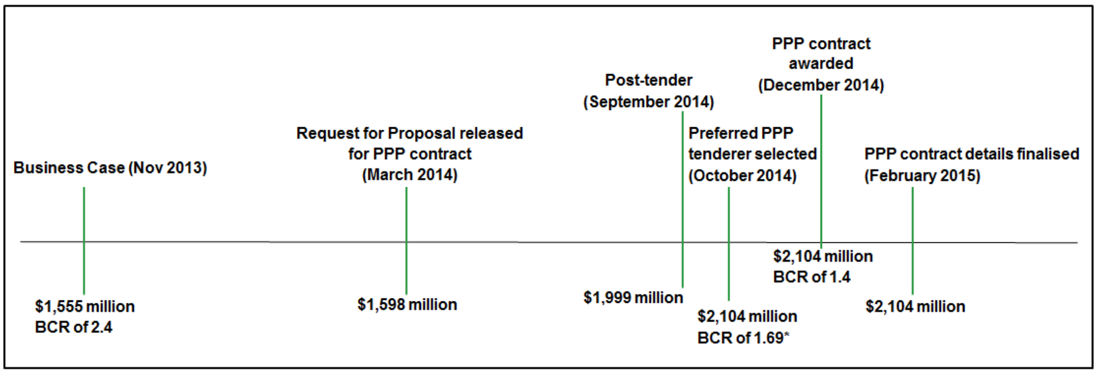
Design changes were also made to the location of the Randwick Racecourse stop and the alignment along Alison Road to address proposals from third party agreement negotiations.

TfNSW assessed the impact of these design and scope changes on the project costs and benefits. In December 2014, it released a CSELR Modifications Report to seek planning approval for the changes. After public consultation, the Minister for Planning approved the planning modifications in February 2015.

The business case underestimated project costs

In November 2013, the CSELR project business case summary estimated costs at $1.6 billion. As Exhibit 4 shows, the budget increased by $549 million to $2.1 billion when TfNSW announced the main works PPP contract had been signed in December 2014.

Exhibit 4: Timeline of CSELR capital cost budget updates up to PPP contract award



Note: BCR = benefit-to-cost ratio (excluding wider economic benefits).

* The BCR was updated only for costs, not benefits.

Source: Audit Office research 2016.

The scope and costs were uncertain when the business case was approved, and this became more evident during procurement. By October 2014, TfNSW reported that mispricing and omissions in the business case had caused $517 million of the $549 million capital cost increase. The remaining increase was due to scope changes and planning modifications, some of which TfNSW knew about before submitting the business case for approval.

TfNSW should have addressed these issues when preparing the business case, and certainly well before procurement began for the two major contracts.

For example, in June 2013, the CSELR project team identified significant design issues. Yet TfNSW did not recognise or resolve them in the business case. While TfNSW included most design changes in the RFP documents, it did not accurately estimate the related costs.

By August 2013, TfNSW commissioned an independent peer review of the business case's capital cost estimate. This found the cost estimate to be low in several areas, including some of those outlined in Exhibit 5. At the same time, the review noted the risk allowance and client cost allowance should compensate for this.

The review recognised the contractors' indirect costs needed to be revised to reflect the complexity of constructing a road-based light rail system in a dense urban environment. However, TfNSW did not update these estimates in the business case.

In September 2014, TfNSW addressed the issues from the review, which increased the budget to $2.0 billion. The Advisory Board noted the business case capital cost estimate had mispriced and omitted several items, and that market condition assumptions had changed.

In October 2014, TfNSW further increased the budget to $2.1 billion. This increase was mainly due to approved variations in the main works PPP package, such as the change in alignment to Alison Road and changes to stops.

Exhibit 5: Changes to capital costs due to mispricing and omissions October 2014

Capital costs	Reason(s) for adjustment	Change $m
Contractors' indirect costs (preliminaries)	Business case estimate for design based on a benchmark against comparable light rail projects. Project requirements and complexity far higher than assumed. Bottom-up approach used, instead of high-level, top-down allowance, in business case.	183.4
Utilities	Considerable amount of utility investigation updated utility estimates in the scope of works, giving much greater detail.	43.6
Design	Business case estimate for design based on a benchmark against comparable light rail projects, underestimating impact of partly pedestrianising George Street.	42.2
Depot and stabling	Retaining structure omitted in error at Rozelle depot. Some plant and equipment understated or excluded in error.	12.8
Signalling, rail systems and power	Pricing errors for stops and precinct lighting.	3.9
Overhead and profit	Consequential adjustment and reallocation of TfNSW cost to manage PPP component.	73.4
Escalation	Consequential adjustment.	25.4
Insurances	Consequential adjustment.	5.6
Risk	Transferred and retained risk adjustments.	126.6
Total		**516.9**

Source: Transport for NSW 2014.

Project benefits are lower than the business case estimate

By December 2014, CSELR project benefits were valued at $3.0 billion. This reduced the $4.0 billion benefit reported in the November 2013 business case summary by 25 per cent.

The key contributor to this decrease was the estimated journey time, which grew because of changes in traffic priority assumptions. Put simply, longer CSELR vehicles would not receive the expected priority at traffic lights. This increased the estimated average peak journey times from Circular Quay to both Randwick and to Kingsford from up to 34 minutes to up to 38 minutes.

TfNSW's CSELR Project Benefits Realisation Plan (April 2015) states the original business case scope remains the aspiration for the project. It also states:

> …the realisation of customer and operating benefits is paramount to the success of the project, and that any further erosion of these benefits could erode the project's net present value and benefit cost ratio, rendering the project unviable.
>
> Journey times and service capacity, which are largely governed to [sic] green times and traffic signal priority, are central to realising customer benefits. This analysis (and the patronage analysis) shows that customers are unlikely to accept the slowness in trips, even with the substantially higher capacity available, so there will be pressure to improve this. TfNSW needs to work hard with Roads and Maritime Services and other stakeholders to maximise outcomes.

TfNSW advised that, although the estimated benefits fell during procurement, the CSELR project may still realise higher benefits during the delivery and operations phases.

Unfinished traffic priority arrangements may further reduce benefits

The final benefits the CSELR project will realise remain uncertain.

CSELR journey times may change when TfNSW finalises traffic priority arrangements with Roads and Maritime Services (RMS). Despite RMS' participation on all CSELR project governance committees since 2011, TfNSW and RMS are still finalising the modelling of traffic and signalised intersections for the operational phase of the project.

TfNSW advised it expected to release an update of the modelling in October 2016. This will then be subject to ongoing updates due to design finalisation and other dependencies, such as development proposals and bus plan changes.

The PPP project deed currently specifies journey times up to 38 minutes from Circular Quay to both Randwick and to Kingsford. Journey times may be revised to reflect operational performance once full services start. Any reductions in traffic priorities that RMS deems necessary will limit TfNSW's ability to achieve service frequencies.

Some information about the project was inaccurate or delayed

Timely and accurate information is vital when managing a project of this size and complexity. Yet some of the information released by TfNSW to the public has not been correct or timely.

For example, in December 2014, TfNSW announced the increase in the capital cost of the project to $2.1 billion. It explained that costs had increased because of the 'huge wins' offered by the preferred bidder of the PPP. These included 50 per cent more capacity than the 9,000 passengers per hour previously planned.

However, this was not correct. As noted above, 94 per cent of the $549 million increase was due to incorrect estimates in the business case.

Further, in January 2015, TfNSW incorrectly responded to community and stakeholder concerns about the project's cost and value for money. In the CSELR Submissions Report to Project Modifications, it stated that the benefits of the project remained at $4.0 billion. They had fallen to $3.0 billion in December 2014.

In November 2015, TfNSW published the main works PPP contract award notice, showing that the benefit-to-cost ratio had reduced from 2.4 to 1.4. Under NSW PPP guidelines, TfNSW should have disclosed that information within 60 days of contract execution. It awarded the contract in December 2014. TfNSW acknowledges this was an oversight.

To maximise transparency and accountability, TfNSW should maintain high standards when releasing information, particularly when there are major changes to project outcomes.

2.2 Reassessment of the economic appraisal

TfNSW conducted a rapid economic appraisal for PPP contract approval

In December 2014, TfNSW completed a rapid economic appraisal and informed NSW Treasury and the NSW Government that the project's benefit-to-cost ratio had reduced from 2.4 to 1.4 (see Exhibit 6). It justified proceeding with the project in part because the ratio remained positive.

The Advisory Board endorsed TfNSW's recommendation to award the main works PPP contract.

However, TfNSW should have also updated the business case and arranged an independent gateway review of the project. These steps would have:

- maximised transparency
- helped to confirm value for money
- complied with relevant policy frameworks.

Given the substantial changes in costs and benefits, revising the business case would have been in line with TfNSW's Investment Gating and Assurance Framework.

An independent assurance (gateway) review would have helped to confirm whether its decision to proceed would still provide value for money. The NSW Government's Major Projects Assurance Framework also requires this.

TfNSW's own guidelines explain that reviews are important as they check if a project has:

- assessed whether the options the market has proposed benefit the project, remain within scope, and will deliver the objectives of the business case and the tender documents
- reassessed the updated business case, including strategic, economic, financial, commercial and project management factors
- incorporated changes from the recommended proposal into a revised economic evaluation and benefits realisation plan
- quantified, documented and considered the social, economic development and environmental costs.

Exhibit 6: Changes reflected in the December 2014 updated economic appraisal

Change	Description
Travel times	Longer travel times due to different traffic signal timing and intersection layouts. Services from Circular Quay to Randwick and Kingsford estimated to increase from up to 34 to up to 38 minutes.
Vehicle length	Longer light rail vehicles with capacity for 466 passengers per vehicle (108 seated and 358 standing), compared with the original 300 passengers per vehicle (100 seated and 200 standing).
Service frequency	Less frequent services to complement higher capacity vehicles. Service intervals increased to four minutes in the CBD and eight minutes on the branches compared with three minutes in the CBD and six minutes on the branches previously assumed for 2021 (with 2.5/5 minute intervals beyond 2036).
Number of stops	Removal of World Square stop due to construction complexity and proximity to adjacent stops.
Capital costs	Increase in capital cost estimates from around $1.6 billion (nominal 2012 dollars) to $2.0 billion (nominal 2014 dollars).
Operating costs	Increase in the stand-alone operating cost (excluding Inner West Light Rail) from around $34.9 million a year (nominal 2012 dollars) to $62.5 million (nominal 2014 dollars) across the appraisal period.

Source: Transport for NSW 2014.

3. Probity and due diligence

Agencies must follow probity and due diligence requirements to show their procurement for a project has been fair and objective. These are set out in NSW Government procurement policies, and in national and state PPP guidelines.

Overall, TfNSW met these requirements for the CSELR project.

TfNSW adopted a detailed probity framework. An independent probity advisor concluded its evaluation process to select the managing contractor and PPP contractor was fair and had due regard to probity. TfNSW also applied due diligence to the PPP bidders consistent with its guidelines for projects of this kind.

We also found no evidence that the PPP contract will not be delivered. TfNSW has included safeguards to mitigate the risk that the contractor cannot fully deliver on its obligations.

At the same time, the early works package should have been included in a key gateway review.

The tender evaluation process was comprehensive. However, TfNSW had used incorrect assumptions in the Public Sector Comparator (PSC) benchmark to assess value for money. It is normal practice for the PSC to be updated as a project evolves. TfNSW presented the first PSC calculation with the CSELR project business case. It then updated the PSC on a number of occasions to reflect changes in the project costs and benefits. It is unfortunate that TfNSW discovered the incorrect assumptions in the PSC so late in the process, and after tenders for the PPP were evaluated. We note that external reviews found that the PSC update process was consistent with the national PPP guidelines and did not unfairly impact proponents.

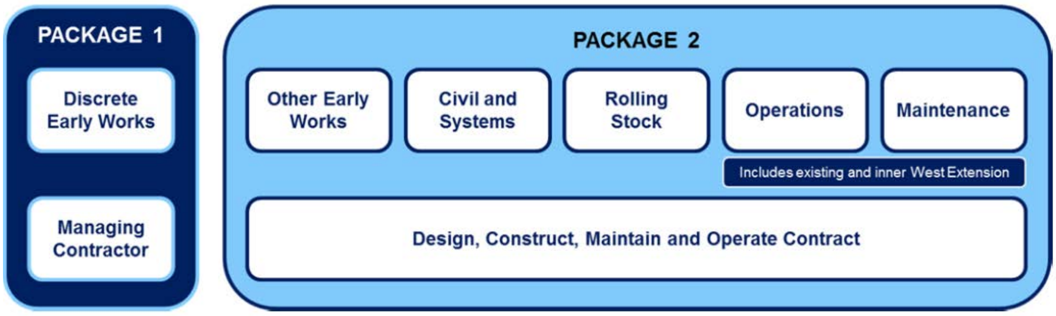
Exhibits 7 and 8 outline the delivery strategy for the CSELR project, divided into two packages.

Exhibit 7: CSELR delivery packages

	Package 1	Package 2
Title	Early works package	Main works PPP package
Coverage	Discrete early works, including major service relocations	Finance, design, construction, operation and maintenance of the CSELR Includes service relocations and operating and maintaining the Inner West Light Rail
Delivery model	Managing contractor model	Design, construct, operate and maintain PPP contract that runs until 2034
Value	$45.0 million when TfNSW awarded the contract in June 2014	$2.1 billion when TfNSW awarded the contract in December 2014

Source: Transport for NSW 2013.

Exhibit 8: CSELR delivery strategy



Source: Transport for NSW 2013.

Our audit reviewed the procurement and tendering processes for these two major contracts. We assessed whether TfNSW:

- applied adequate processes to assure probity and due diligence in tendering
- complied with relevant NSW Government procurement policies and guidelines, the capital assurance system and PPP contract requirements.

3.1 Governance and probity in procurement

We found there was a strong governance structure for the procurement of the works packages, including:

- independent review
- detailed probity framework
- extensive due diligence.

However, a potential conflict of interest was not recognised or addressed.

Procurement processes were independently reviewed

Good governance of large capital projects calls for independent scrutiny of procurement processes to ensure objectivity and value for money. NSW Treasury and the Advisory Board played a major role in reviewing the procurement processes for the works packages.

The Advisory Board conducted detailed reviews and guided all aspects of procurement for the main works PPP package. Board meeting papers for the two years to January 2016 showed an active interest in all aspects of the package, including critical review and endorsement of:

- PPP procurement planning, such as the request for proposal documents
- updates to the public sector comparator
- increases in the project budget
- the outcome of the main works PPP package tender evaluation.

The Advisory Board also monitored procurement progress for the early works managing contractor package.

NSW Treasury worked with TfNSW to finalise the main works PPP package tender and largely finalise the evaluation documents before releasing the request for proposal (RFP). NSW Treasury was also involved in the tender evaluation, and was satisfied with contract negotiations and finalisation. It confirmed that TfNSW materially complied with the NSW and national PPP guidelines.

NSW Treasury also reviewed each of these key stages for the main works PPP package in response to TfNSW reports.

There was a detailed probity framework

TfNSW engaged an independent probity advisor to oversee the tender and evaluation phases of both works packages. The advisor concluded TfNSW's evaluation of both works contractors was fair and had due regard to probity.

The overall probity framework was detailed and included:

- probity induction and briefing for all project staff
- audits of the four key project advisors' premises and systems to confirm agreed probity measures were in place
- probity advice throughout the delivery phase
- probity review of all key procurement activities for consulting, construction contracts and the PPP.

TfNSW applied extensive due diligence processes

We found no evidence that the PPP contract will not be delivered. TfNSW has included provisions that mitigate the risks of the contractor not fully delivering on its obligations.

During the tender evaluation, TfNSW identified issues that could affect the financial strength of both bidders, including a serious fraud conviction in one of the bidder's related entities. TfNSW applied its standard risk assessment process and put in place contract provisions to manage this risk. This is consistent with the usual approach for this type of risk.

Potential conflict of interest was not recognised

We identified a potential conflict of interest with two members of the main works PPP contract pre-tender assurance review panel. This was because they worked for organisations actively involved in the development of the CSELR project.

One of these members declared the conflict of interest, and the probity advisor monitored it. The other member did not, and TfNSW did not address this in its submissions to the NSW Government. Rather, the submissions for approval of the RFP for the main works PPP highlighted the independence of the consultants.

We do not question the capability or diligence of these members. But to maintain confidence in a procurement process, it is vital that any potential perception of conflict of interest is recognised and addressed.

3.2 Tender process

While the underlying governance structure was sound, we found that unresolved issues increased risks in tendering and that the early works package should have been included in a gateway review.

The tender evaluation process itself was comprehensive and met relevant guidelines. But, late in the process, TfNSW identified an error in the PSC benchmark used to assess value for money.

TfNSW released the RFP on time, but uncertainties increased risk

TfNSW met the March 2014 timeframe to release the RFP for the CSELR project. However, many unresolved issues increased the risks and decreased value for money, including:

- the scope, duration and extent of the early works package
- the scope of utility works solutions
- outstanding third party agreements affecting the design and scope of works
- planning consent conditions.

We found that TfNSW did not adequately finalise the following information for the RFP:

- third party agreements with key stakeholders

- the submissions report
- early works contract scope and status for handover to the PPP contractor
- in-principle traffic prioritisation.

Not having this information available meant PPP proponents may have applied risk pricing in the tender estimates, in turn reducing value for money.

Chapter 2 discussed the implications of not finalising key third party agreements by the time TfNSW signed the PPP contract.

Early works package should have been part of the gateway review

Overall, the pre-tender assurance review was thorough and provided a greater level of scrutiny than would normally be expected from a mainstream gateway review. This reflects the transport-specific assurance framework that TfNSW uses and NSW Treasury endorsed.

However, the review did not adequately address the:

- risk of managing the integration of work covered by the two main contracts
- outstanding issues with the capital cost estimate.

The review also did not include the early works package, even though it acknowledged the potential risks of not managing the overlaps with the main works PPP package. This is a concerning omission, particularly after the CSELR project business case assurance review made similar observations.

TfNSW advised that, given the value, criticality and complexity of the PPP compared to the early works package, the PPP was its primary focus. However, we believe it was necessary to consider the early works managing contractor package in the context of the potential risks of overlaps with the main works PPP package.

The review also did not address concerns the peer review identified about the underestimated capital cost in the business case. This is despite the review being required to consider the robustness of the cost estimate. As noted earlier, these uncertainties led to increases in the project budget.

The tender evaluation process was comprehensive

The main works PPP tender evaluation process was comprehensive. TfNSW completed the evaluation in line with the evaluation plan and followed NSW and national PPP guidelines.

The evaluation report, including the probity comments, confirmed the assessment complied with relevant NSW Government policies and guidelines. The probity advisor validated the process and did not raise any probity issues.

The tender evaluation report concluded that:

- neither of the bidders' proposals represented value for money against the PSC quantitative benchmark
- there were outstanding commercial issues that required resolution.

It is normal practice for the PSC to be updated as a project evolves. TfNSW presented the first PSC calculation with the CSELR project business case. It then updated the PSC on a number of occasions to reflect changes in the project costs and benefits.

In October 2014, TfNSW made the final adjustment to the PSC because it found that a key assumption was incorrect. The incorrect assumption was that management effort and associated contract interface risks would be the same for a traditional delivery model as a PPP.

It is unfortunate that TfNSW discovered this error so late in the process, and after tenders for the PPP were evaluated. National PPP guidelines permit the PSC to be adjusted after bids are received in certain circumstances, including where changes to assumptions are required.

It is evident that PSC updates were scrutinised and endorsed by the Advisory Board and reviewed by the probity advisor. Those reviews found that the PSC update process was consistent with the national PPP guidelines and did not unfairly impact proponents.

TfNSW also worked with its independent advisors and NSW Treasury to develop a negotiation plan to resolve the outstanding commercial issues, including risk sharing parameters, identified in the tender evaluation report.

Appendices

Appendix 1: Response from Transport for NSW

Transport for NSW

Our Ref: GV16/16581
Your Ref: PA6571

Ms Margaret Crawford
Auditor-General of NSW
Audit Office of New South Wales
GPO Box 12
SYDNEY NSW 2001

Dear Ms Crawford

Performance Audit Report – CBD and South East Light Rail Project

I refer to your letter of 9 November 2016 and provide my comments on the report, in accordance with section 38C of the *Public Finance and Audit Act 1983.*

This Project is one of many projects to be delivered under the Long Term Transport Master Plan. Transport for NSW (TfNSW) is committed to delivering these projects and their benefits for the people of New South Wales.

During the period from 2011 leading up to the Project's contract award in late 2014, TfNSW had approved processes in place to undertake assurance reviews. In December 2014, Infrastructure NSW (INSW) took over project assurance for all major projects, including for transport. TfNSW complies with INSW's Infrastructure Investor Assurance framework for the significant number of major projects that are either in development or delivery.

Transport for NSW is now focused on delivering, in early 2019 and within its $2.1 billion budget, a city-shaping public transport service that will create $3 billion in economic benefit for the state while providing frequent, reliable, safe and comfortable light rail between the CBD and South East and improving access to the SCG and Allianz Stadium, Centennial Park, Randwick Racecourse, the University of NSW and Randwick hospitals precinct.

Transport for NSW notes the recommendations in the report.

Yours sincerely

Tim Reardon
Secretary

24 NOV 2016

Transport for NSW
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Appendix 2: Chronology of CSELR project development

Date	Event
September 2010	The former Premier announced commitment to build a CBD light rail system, with a 2010–15 Memorandum of Understanding (MOU) between the NSW Government and the City of Sydney. The MOU included design and construction of light rail through the CBD, and immediate detailed analysis to determine the alignment of the Sydney CBD light rail extension.
March 2011	The NSW Government announced commitment to build light rail through the CBD to Barangaroo, with a preferred route along George Street. It also committed to feasibility studies into the construction of light rail through the CBD and from the CBD to the University of NSW and University of Sydney. TfNSW started developing a Sydney Light Rail Strategic Plan (Strategic Plan). TfNSW's 2011–12 budget included $103 million to expand light rail, with funding for the Inner West Light Rail (IWLR) extension and to examine the feasibility of running light rail through the CBD and out to the universities.
April 2012	TfNSW established a Light Rail Steering Committee. Members included the Deputy Director-General of Transport Projects (TfNSW chair), TfNSW senior officials and a representative from Roads and Maritime Services. One of its main objectives was to guide the Strategic Plan. The Committee Chair reported to the then Director-General of TfNSW.
December 2012	After completion of the Strategic Plan, the NSW Government announced a light rail system would be built through the CBD to Randwick and Kingsford. The cost was estimated at $1.6 billion, with work starting in 2014 through a public private partnership (PPP) arrangement. TfNSW's 2013–14 budget included $423 million (committed to 2016–17) to plan, design and construct the CSELR. TfNSW received this funding after the NSW Government announced the project would proceed.
April 2013	The Light Rail Executive Steering Committee replaced the Light Rail Steering Committee. Additional members included NSW Treasury and the Department of Premier and Cabinet. The committee was to endorse key project decisions and to keep stakeholders informed of progress and issues that may affect project objectives.
June 2013	TfNSW appointed a new project director to manage delivery.
October 2013	The NSW Government announced a new Director-General for TfNSW.
November 2013	TfNSW published the business case summary for the CSELR project. The estimated cost of building the CSELR was $1.6 billion. TfNSW estimated the CSELR would generate almost $4.0 billion in benefits, a benefit-to-cost ratio of 2.5 (including wider economic benefits).
June 2014	The Minister for Planning granted planning approval with 131 conditions. The environmental impact statement for the CSELR project was on public exhibition from 14 November to 16 December.
January 2014	The project Advisory Board was appointed and first met in January 2014. One of its key objectives is to provide oversight and independent assurance and advice to the Minister for Transport, the Minister for Roads and Ports, and the Premier. The Advisory Board reports directly to the Minister for Transport. Three members are external to the NSW Government, including the chair. Board members include representatives from Infrastructure NSW, Roads and Maritime Services, and NSW Treasury.

Date	Event
June 2014	TfNSW awarded the early works managing contract to carry out up to $45.0 million of essential early works. These started in October 2015 and include relocating buried utilities such as water, telecommunications, gas and electricity cables and pipes, and initial work around Moore Park.
October 2014	The NSW Government announced its preferred bidder, Connecting Sydney (later renamed ALTRAC Light Rail), to design, construct, operate and maintain the Sydney Light Rail network as part of a PPP. The bidder comprised Transdev Sydney, Alstom Transport Australia, Acciona Infrastructure Australia and Capella Capital.
December 2014	TfNSW signed the main works PPP contract on 17 December. The Minister for Transport announced changes to the CSELR project. The major changes involved: • revising platform lengths at all stops to allow longer light rail vehicles (67 rather than 45 metres) • redesigning several stops • switching technologies for delivering a wire-free section • removing a proposed stop at World Square. The minister also announced the project cost had increased from $1.6 billion to $2.1 billion. (This is capital expenditure only and excludes financing, operation and maintenance costs.)
February 2015	The Department of Planning and Environment approved the change to the CSELR project after public exhibition in December 2014. The project and financing agreement of the PPP contract between TfNSW and ALTRAC Light Rail (financial close) was achieved.
April 2015	TfNSW established a stand-alone major project delivery office to deliver the CSELR and oversee the operation of the existing IWLR, with direct reporting to the Acting Secretary.
June 2015	The NSW Government announced the appointment of a new Secretary of TfNSW. The appointee had been Acting Secretary since February 2015.
July 2015	ALTRAC Light Rail took responsibility for operating and maintaining light rail services on the existing IWLR as part of the PPP contract for the CSELR.
August 2015	The NSW Government appointed a new CSELR Project Director.

Source: Audit Office research 2016.

Appendix 3: Assurance policies and guidelines

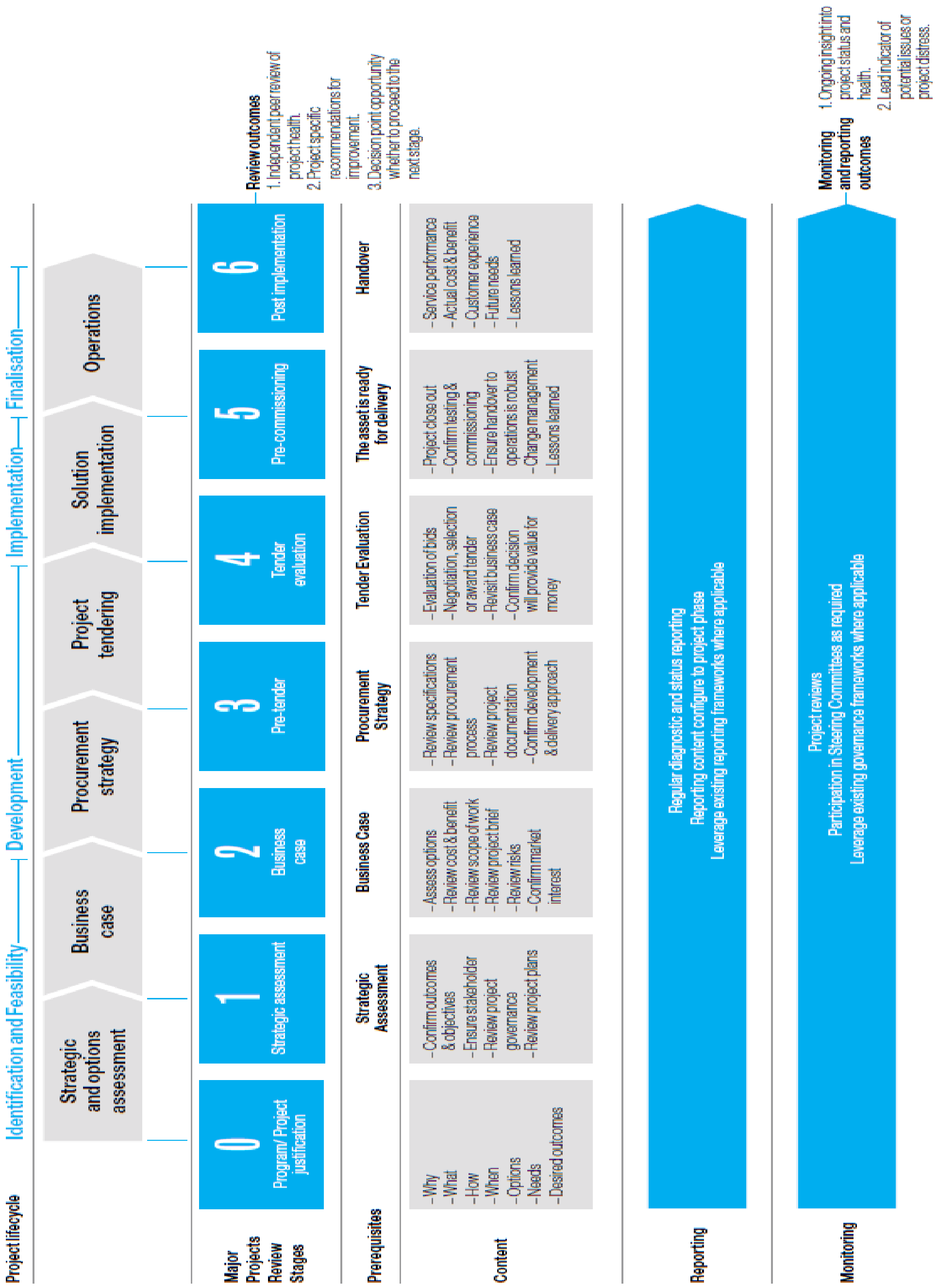
Date	Policy or guideline
1 July 2004	**NSW Treasury Circular TC 04/07 and Policy and Guidelines Paper TPP 04–1** Introduced a six-stage independent gateway review process as part of reforms to capital project assurance process. This included: • gateway reviews generally to take one week, using three or more independent experts to review a project stage against seven success factors: service delivery, affordability (value for money), sustainability, governance, risk management, stakeholder management and change management • mandatory gateway reviews on the final business case to inform funding, regardless of whether a government or internal agency decision • agencies encouraged to initiate gateway reviews at the other five stages, particularly at pre-tender award stage • gateway review teams to be independent of the project and sponsor agency • final business case gateway reviews linked to the Budget, with the sponsor agency submitting review reports and the final business case to NSW Treasury with their bid for capital funding • gateway reviews facilitated by the (then) Department of Commerce • sponsor agencies to submit a procurement strategy and pre-tender estimate reports to NSW Treasury, which reconfirm the business case before calling tenders • sponsor agencies to submit a post-tender review report to NSW Treasury reconfirming the business case before contract award • sponsor agencies to submit after contract award material variations reports to NSW Treasury, highlighting major changes to project scope, cost and time as they occur. These reforms applied to all government agencies, statutory authorities, trusts and other government entities except State Owned Corporations (SOCs).
13 July 2006	**NSW Treasury Circular TC 06/20** Introduced Capital Expenditure Authorisation Limits as a budget control measure. This allowed ministers to add to or amend Cabinet-approved capital projects outside the annual Budget if they stay within portfolio authorisation limits. However, existing approved projects cannot be varied by more than 10 per cent of the approved estimated total cost in Budget Paper 4. For further projects costing $1.0 million or more, ministers must submit a final business case to the Treasurer for approval. Projects costing $10.0 million or more must also complete a gateway review before seeking this approval. The circular is silent on what happens if ministers wish to change an existing approved project by more than 10 per cent, although NSW Treasury advice is that the Treasurer would need to approve a change. This does not address whether a revised final business case or a gateway review report is also required.

Date	Policy or guideline
29 May 2008	**NSW Treasury circulars TC 08/06 and TC 08/07** Introduced a new process for developing the State's ten-year infrastructure strategy and submission of business cases and gateway review reports on projects costing $10.0 million or more. With their annual Total Asset Management (TAM) submissions, general government sector agencies and 'nominated' SOCs had to submit to NSW Treasury: • a preliminary business cases and a strategic gateway review report for projects planned to start in the next two to four years • a final business case and its gateway review report for projects proposed for funding approval in the coming budget year.
December 2008	**NSW Treasury Policy and Guidelines Paper TPP 08–5** Detailed guidelines and templates for preliminary and final business cases for capital projects.
2 November 2010	**NSW Treasury Circular TC 10/13** The NSW Treasury Gateway Unit to facilitate all gateway reviews. Preliminary business case submissions and gateway review reports to be submitted to NSW Treasury before projects are included in the Budget forward estimates, the State Infrastructure Strategy or other public statements.
11 October 2012	**NSW Treasury Circular TC 12/19** Updated NSW Treasury Circular TC 08/09 by increasing the lower threshold for submission of preliminary and final business cases on capital projects to NSW Treasury from $1.0 million to $5.0 million.
11 October 2012	**NSW Treasury Circular TC 12/20** Updated NSW Treasury Circular TC 06/20 on the use of Capital Expenditure Authorisation Limits as a budget control measure. Portfolio ministers were replaced with cluster coordinating ministers, and ministers could operate within the consolidated authorisation limits for the whole cluster. The threshold for submission of final business cases to the Treasurer for proposed new projects within the cluster authorisation limits was raised to $5.0 million.
June 2011	***Infrastructure NSW Act 2011*** Legislation established Infrastructure NSW (INSW) to review and evaluate proposed major infrastructure projects costing $100 million or more, and to oversee and monitor their delivery.
December 2011	**Major Projects Assurance Framework** INSW became responsible for mandatory gateway reviews on all seven stages of a project life cycle and for reporting regularly to Cabinet on project status.
May 2013	**One consistent gateway review system for capital projects** INSW became responsible for gateway reviews on projects costing $100 million or more using TfNSW's seven gate Investment Gating and Assurance Framework for transport related projects. TfNSW to facilitate these reviews. NSW Treasury to facilitate gateway reviews on non-transport related projects costing $100 million or more, using the existing NSW Gateway system upgraded to seven stages. INSW can determine its role in such reviews, such as selecting the review team, acting as reviewer, or participating as an observer. NSW Treasury retained responsibility for facilitating gateway reviews for all capital projects, including transport related projects, costing less than $100 million.

Date	Policy or guideline
15 October 2013	**NSW Treasury Circular TC 13/08 and Policy and Guidelines Paper TPP 13-03** Updated agency annual TAM submissions to NSW Treasury to support the Budget process outlined in NSW Treasury Circular TC 08/06. All general government sector agencies and 'nominated' SOCs must submit TAM plans around October or November each year, with business cases and Gateway review reports as outlined in NSW Treasury circulars TC 10/13 and TC 12/19. However, the circular and paper do not fully reflect the December 2011 and May 2013 assurance arrangements involving INSW for capital projects costing $100 million or more. Gateway reviews are still only mandatory at preliminary and final business case stages.
25 July 2016	**NSW Treasury Circular TC 16–09** Infrastructure Investor Assurance Framework (IIAF) replaced the Major Project Assurance Framework. The IIAF seeks to increase the NSW Government's confidence and assurance in planning and implementing capital projects throughout their lifecycle. Projects with an estimated capital cost of $10.0 million or more must be: • registered with INSW • risk-profiled • assigned an appropriate project tier. For Tier 1 (High Profile/High Risk) projects, such as the CSELR project, the seven independent gateway assurance reviews are mandatory. The sponsoring agency must prepare a Project Assurance Plan consistent with the Project Tier for the infrastructure Investor Assurance Committee to endorse. Agencies must then: • ask INSW to facilitate the gateway reviews and health checks • submit relevant project reports to INSW in line with the Project Assurance Plan.

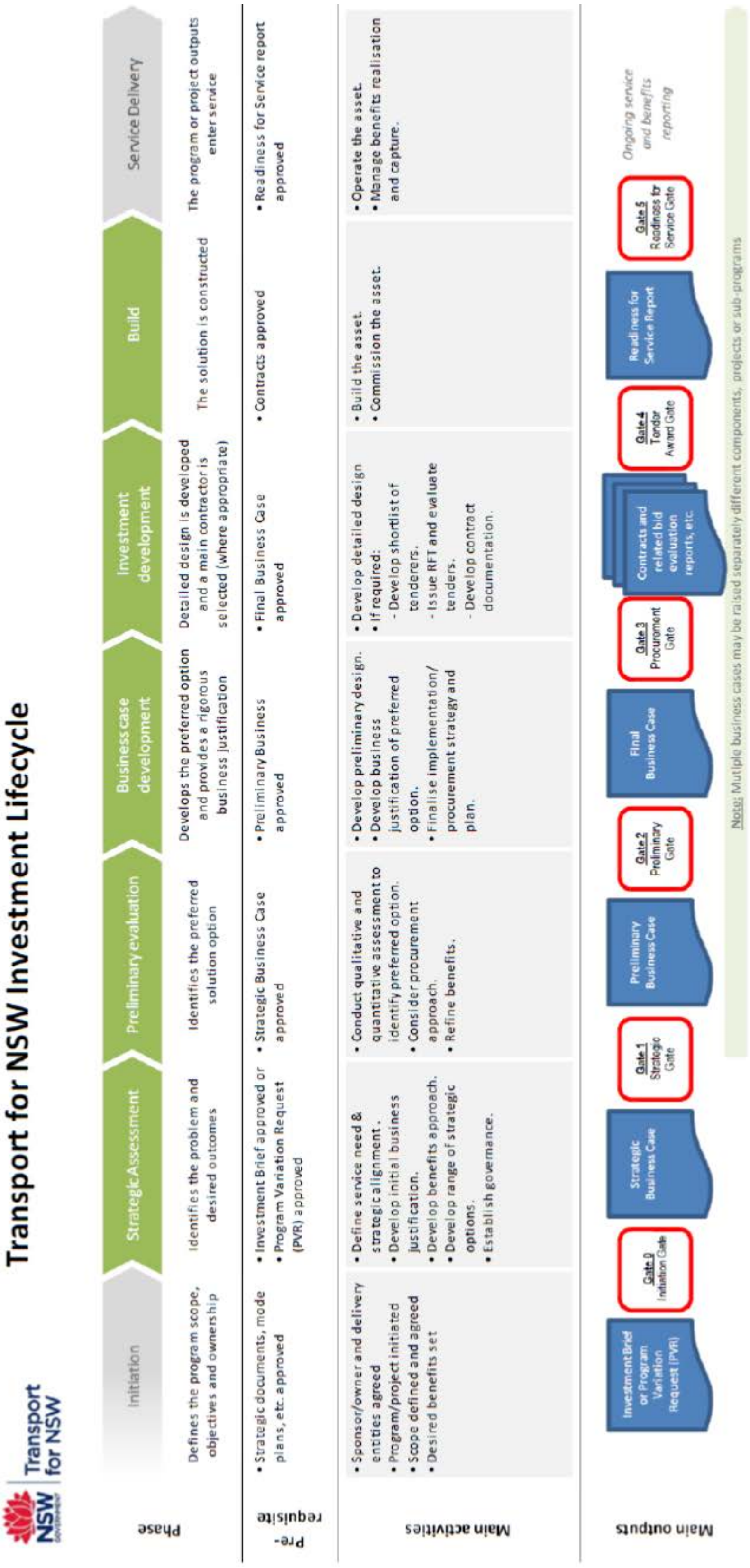
Source: Audit Office research 2016.

NSW Government Major Projects Assurance Framework



Source: Infrastructure NSW State Infrastructure Strategy 2012.

Transport for NSW Investment Gating and Assurance System



Source: Transport for NSW 2013.

Appendix 4: About the audit

Audit objective

This audit assessed how well TfNSW ensured that the planning and procurement for the CSELR project achieved value for money, within the parameters set by the NSW Government. These included timeframes for planning, procurement and delivery.

Audit criteria

To answer the audit objective, the audit examined whether TfNSW ensured that:

- project planning and procurement was robust
- changes to the project scope and cost were justified and represented best value for money
- appropriate probity and due diligence was done in the tendering process.

We used relevant policies and guidelines to assess whether TfNSW applied ‘appropriate processes’. These included:

- TC10–13 Gateway Review System (November 2010)
- TC12–19 Submission of Business Cases (October 2012)
- TPP08–5 Guidelines for Capital Business Cases (December 2008)
- TPP07–5 and TPP07–6 Guidelines for Economic Appraisal (July 2007)
- TPP04–1 NSW Government Procurement Policy (July 2004)
- Agency Accreditation Scheme for Construction (December 2012)
- Construction Procurement Direction C2014–01: Construction procurement policies and procedures – interim arrangements (March 2014)
- TPP02–4 Guidelines for assessment of projects of state significance (July 2002)
- NSW Government Tendering Guidelines (December 2011)
- National Public Private Partnerships Policy and Guidelines
- NSW Public Private Partnerships Guidelines (2012)
- TfNSW’s Investment Gating and Assurance Framework (July 2013).

Audit scope and focus

The main focus of the audit was TfNSW’s planning and procurement up to the award of the PPP contract. We examined the period from the development of the Sydney Light Rail Strategic Plan, which started in August 2011, to when the major construction contract was finalised in February 2015.

The audit did not examine the merits of NSW Government policy objectives or the merits of project-related decisions. However, we examined whether key project decisions considered issues and recommendations raised by assurance processes, and whether key project decisions were supported by robust analysis and business cases in line with relevant policies and guidelines.

We also did not review the appropriateness of the selected technical solution of the CSELR. However, we examined the processes applied to provide assurance that project decisions were robust and the CSELR project represents best value for money.

Despite this, we may comment on these issues where they affect our findings or provide context.

Audit approach

The audit collected performance information and evidence, and produced its report by:

1. holding interviews
2. analysing collected performance information, reports and documents

3. corroborating and assessing performance against criteria
4. documenting findings
5. holding exit interviews to consult on the audit's findings, conclusion and recommendations for improvement.

The audit approach was complemented by quality assurance processes within the Audit Office to ensure compliance with professional standards.

Audit methodology

Our performance audit methodology is designed to satisfy Australian Audit Standards ASAE 3500 on performance auditing. The Standard requires the audit team to comply with relevant ethical requirements and plan and perform the audit to obtain reasonable assurance and draw a conclusion on the audit objective. Our processes have also been designed to comply with the auditing requirements specified in the *Public Finance and Audit Act 1983*.

Acknowledgements

We gratefully acknowledge the co-operation and assistance provided by Transport for NSW and NSW Treasury officials. In particular, we would like to thank our liaison officers, and the staff who participated in interviews and provided audit material.

Audit team

Jasmina Munari and Giulia Vitetta conducted the performance audit. Expert advice was provided by Ted Smithies and Rosemarie Risgalla, Value Network Pty Ltd. Kathrina Lo provided direction and quality assurance.

Audit cost

Including staff costs and overheads, the estimated cost of the audit is $416,000.00.

Performance auditing

What are performance audits?

Performance audits determine whether an agency is carrying out its activities effectively, and doing so economically and efficiently and in compliance with all relevant laws.

The activities examined by a performance audit may include a government program, all or part of a government agency or consider particular issues which affect the whole public sector. They cannot question the merits of government policy objectives.

The Auditor-General's mandate to undertake performance audits is set out in the *Public Finance and Audit Act 1983*.

Why do we conduct performance audits?

Performance audits provide independent assurance to parliament and the public.

Through their recommendations, performance audits seek to improve the efficiency and effectiveness of government agencies so that the community receives value for money from government services.

Performance audits also focus on assisting accountability processes by holding managers to account for agency performance.

Performance audits are selected at the discretion of the Auditor-General who seeks input from parliamentarians, the public, agencies and Audit Office research.

What happens during the phases of a performance audit?

Performance audits have three key phases: planning, fieldwork and report writing. They can take up to nine months to complete, depending on the audit's scope.

During the planning phase the audit team develops an understanding of agency activities and defines the objective and scope of the audit.

The planning phase also identifies the audit criteria. These are standards of performance against which the agency or program activities are assessed. Criteria may be based on best practice, government targets, benchmarks or published guidelines.

At the completion of fieldwork the audit team meets with agency management to discuss all significant matters arising out of the audit. Following this, a draft performance audit report is prepared.

The audit team then meets with agency management to check that facts presented in the draft report are accurate and that recommendations are practical and appropriate.

A final report is then provided to the CEO for comment. The relevant minister and the Treasurer are also provided with a copy of the final report. The report tabled in parliament includes a response from the CEO on the report's conclusion and recommendations. In multiple agency performance audits there may be responses from more than one agency or from a nominated coordinating agency.

Do we check to see if recommendations have been implemented?

Following the tabling of the report in parliament, agencies are requested to advise the Audit Office on action taken, or proposed, against each of the report's recommendations. It is usual for agency audit committees to monitor progress with the implementation of recommendations.

In addition, it is the practice of Parliament's Public Accounts Committee (PAC) to conduct reviews or hold inquiries into matters raised in performance audit reports. The reviews and inquiries are usually held 12 months after the report is tabled. These reports are available on the parliamentary website.

Who audits the auditors?

Our performance audits are subject to internal and external quality reviews against relevant Australian and international standards.

Internal quality control review of each audit ensures compliance with Australian assurance standards. Periodic review by other Audit Offices tests our activities against best practice.

The PAC is also responsible for overseeing the performance of the Audit Office and conducts a review of our operations every four years. The review's report is tabled in parliament and available on its website.

Who pays for performance audits?

No fee is charged for performance audits. Our performance audit services are funded by the NSW Parliament.

Further information and copies of reports

For further information, including copies of performance audit reports and a list of audits currently in progress, please see our website www.audit.nsw.gov.au or contact us on 9275 7100.

Our vision

Making a difference through audit excellence.

Our mission

To help parliament hold government accountable for its use of public resources.

Our values

Purpose – we have an impact, are accountable, and work as a team.

People – we trust and respect others and have a balanced approach to work.

Professionalism – we are recognised for our independence and integrity and the value we deliver.

Professional people with purpose

audit.nsw.gov.au

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