PERFORMANCE AUDIT

17 JUNE 2021

WestConnex: changes since 2014

NEW SOUTH WALES AUDITOR-GENERAL'S REPORT

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 **'WestConnex: changes since 2014'.**

Margaret Crawford
Auditor-General
17 June 2021

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Section one

WestConnex: changes since 2014

Executive summary

WestConnex

WestConnex is a 33 km motorway network that will link the western and south-western suburbs with the Sydney CBD and the Airport and Port Botany precinct. It will also connect with proposed future motorway links to the north shore, northern beaches, and southern Sydney. The project is being delivered in three stages, with completion scheduled for 2023.

When first conceived by Infrastructure NSW (INSW) in 2012, WestConnex was described as a single integrated concept. In August 2013, government approved a business case for an integrated concept of WestConnex, with an estimated cost of $14.881 billion (in nominal outturn costs). Transport for NSW (TfNSW) is the government agency (sponsor agency) accountable for the delivery of WestConnex in accordance with the business case. In August 2014, the NSW Government established the Sydney Motorway Corporation to fund, deliver and operate WestConnex.

In November 2015, the NSW Government publicly released an updated WestConnex business case with greater detail and design enhancements, which increased the estimated cost to $16.812 billion.

Subsequent to this update, further changes were made to the design, including realignment of the M4 to M5 Link connection to the Western Harbour Tunnel project, an expanded interchange at Rozelle, the deletion of the Camperdown Intersection, and the addition of the Iron Cove Link. The reported budget for WestConnex was not changed as a result of these design updates.

To fund WestConnex, Sydney Motorway Corporation consolidated a concessional loan of $2 billion from the Australian Government, private sector debt and equity funding from the State. The Australian Government also provided a $1.5 billion contribution to the State to partially fund construction of WestConnex.

In August 2018, the NSW Government sold 51 per cent of its stake in Sydney Motorway Corporation for $9.26 billion. At the time of writing, the NSW Government is in the process of selling its remaining 49 per cent stake of Sydney Motorway Corporation.

About this audit

In the course of delivering a complex major infrastructure project, it is reasonable to expect changes to the original design and scope. Changes may occur as the design moves from a high-level concept to a detailed design for project delivery, as new risks or issues are identified, as demands change, or as other interdependent projects are approved. Changes can also occur in response to potential cost or delivery overruns which arise as a result of planning deficiencies. Where design and scope changes significantly change the project costs and/or expected benefits, the justification for these changes should be robust and transparent.

Following our 2014 performance audit, 'WestConnex: Assurance to the government', the NSW Government established the Infrastructure Investor Assurance Framework (IIAF) to improve accountability and transparency over major projects that are developed, procured, or delivered by government agencies. Under the framework, TfNSW, as project sponsor, is responsible for ensuring the WestConnex project meets all IIAF requirements. These include ensuring the project remains strategically aligned and viable, and benefits are on track. INSW is responsible for coordinating the assurance review process and reporting directly to NSW Cabinet on project delivery against time, budget and risks to project delivery.

The objective of this performance audit is to assess whether TfNSW and INSW effectively assessed and justified major scope changes to the WestConnex project since 2014.

Conclusion

Government decisions to separate WestConnex related projects and deliver them outside WestConnex's 2015 business case budget of $16.812 billion has understated the total cost of WestConnex achieving its objectives. The rationale for separating these elements from the WestConnex project scope has not been transparent. Together, these projects represent costs of $4.26 billion funded outside the $16.812 billion WestConnex budget.

Since 2015, the NSW Government has removed several projects from the scope described in the 2015 WestConnex business case, and funded them separately:

- In mid-2017, the Sydney Gateway became a separate project outside WestConnex. This project, estimated in 2015 to cost $800 million, now has an estimated cost of $2.56 billion. The project remains partly funded by an $800 million contribution from the $16.812 billion WestConnex budget, with $1.76 billion funded outside the WestConnex budget.
- In late 2018, the Parramatta Road Urban Amenity Improvement Program became a separate project outside the 2015 WestConnex budget. This project was part of the 2015 WestConnex Business Case and is intended to create urban renewal opportunities around Paramatta Road. It is estimated to cost $198 million.

Work required to integrate WestConnex with existing roads ('network integration') was funded outside the $16.812 billion budget for the November 2015 WestConnex business case. TfNSW is obliged to deliver network integration works to meet the conditions of planning approval for WestConnex. As such, these costs should be included in the WestConnex budget. The current estimated cost of these network integration works is $2.3 billion.

The rationale to exclude or remove each of these elements from the WestConnex project scope has not been transparent, nor supported by robust analysis and justification. These elements are required for WestConnex to achieve its objectives. The additional project costs will also deliver additional benefits not included in the 2015 WestConnex business case. Removing them understates the total cost of achieving the objectives set out in the 2013 and 2015 WestConnex business cases.

WestConnex's complex financing arrangements further reduce transparency on costs.

Transparency over the total cost of WestConnex – including elements funded from other project budgets – is further limited by the project's complex financing arrangements.

Prior to 2018, the Audit Office provided assurance on costs borne and levied by Sydney Motorway Corporation and its controlled entities. Since the NSW Government sold its majority stake in WestConnex in August 2018, the Auditor-General no longer has the mandate to provide this assurance. Considering this, and the lack of transparency on the cost of projects removed from the WestConnex project scope, there is no transparent or comprehensive view of the total cost to deliver WestConnex – nor of how these cost would be offset by the sale of the government's remaining stake.

There is no 'whole-of-program' assurance over the WestConnex program of works. This limits transparency and confidence that WestConnex will meet intended objectives within its budget.

After INSW conducted a gateway review of a draft of the 2015 WestConnex Business Case under the IIAF, the project was broken up into separate components to support staged delivery. Each of these projects, including the Sydney Gateway, as well as the Network Integration Program, underwent the required assurance reviews under the IIAF. INSW also provided monthly progress updates to government. These individual projects are, in themselves, significant in scale and complexity. Addressing them as discrete components for the purposes of the assurance review process is justified and there is no requirement under the IIAF to holistically review projects which together deliver final benefits of the WestConnex program. However, whole-of-program review would improve transparency over total costs and benefits.

In 2016, TfNSW revised the design of the M4-M5 Link and Rozelle to address traffic and integration issues.

TfNSW identified that the concept designs used for the M4-M5 Link and Rozelle Interchange in the 2015 WestConnex Business Case would not integrate well with surface roads, including the proposed Bays Precinct, and would result in increased traffic on Victoria Road and the ANZAC Bridge. Following a comprehensive review conducted in mid-2016, TfNSW refined the design of the M4-M5 Link and Rozelle Interchange to address these limitations without increasing the cost of delivery. TfNSW documented the rationale for the design changes, including how the changes improved on the original design to increase capacity, improve traffic conditions and create more open space.

1. Key findings

Government decisions to fund WestConnex related projects outside of WestConnex's $16.812 billion reported budget have reduced transparency over costs and understate the full cost of WestConnex

In 2015, the work required to integrate WestConnex with existing roads ('network integration') was funded as a separate project with an estimated cost of $1.534 billion outside the 2015 WestConnex budget of $16.812 billion. TfNSW then created the Network Integration Program to respond to the conditions of planning approval for WestConnex. The current estimated cost to deliver all network integration works is $2.3 billion.

Since the 2015 WestConnex Business Case, the NSW Government has removed several elements from the scope of WestConnex and funded them as separate projects, while keeping the published WestConnex budget at an estimated $16.812 billion. Projects removed include:

- Sydney Gateway, currently costed at $2.56 billion (with an $800 million contribution from WestConnex)
- Parramatta Road Urban Amenity Improvement Program, costed at $198 million in late 2018 and funded though new funding to the Greater Sydney Commission.

Together, these projects represent costs of $4.26 billion that are not included in the WestConnex budget, but are required for WestConnex to achieve the objectives of the 2013 and 2015 WestConnex Business Cases. The costs of these elements in supporting the objectives of WestConnex is not tracked centrally, and there is no single point of oversight over them. Exhibit 1 compares total WestConnex forecast costs (including related projects) between November 2015 and April 2021.

Exhibit 1: WestConnex and related projects forecast costs

	November 2015 ($ million)	April 2021 ($ million)
WestConnex		
Stage 1		
Stage 1A (M4 Widening)	497	517
Stage 1B (M4 East)	3,802	3,782
Total	**4,299**	**4,299**
Stage 2		
King Georges Road Interchange	131	131
New M5	4,335	4,335
Sydney Gateway Contribution	800	800
Total	**5,266**	**5,266**
Stage 3		
M4-M5 Link and Rozelle Interchange	7,049	7,049
Urban renewal (Parramatta Road)	198	--
Urban renewal (Rozelle)	--	198
Total	**7,247**	**7,247**
Total reportable WestConnex	**16,812**	**16,812**

	November 2015 ($ million)	April 2021 ($ million)
Related projects		
Network integration	1,534	2,300
Urban renewal (Parramatta Road)	--	198
Sydney Gateway Road Component	--	1,760
Total	**1,534**	**4,258**

Source: AO research.

Many network integration costs are directly attributable to WestConnex and ought to be included in the reported budget for WestConnex

Prior to 2015, the scope of WestConnex included enabling works needed before or during construction, as well as funding for future works to address any adverse traffic outcomes created by WestConnex which become apparent after its opening. These works are also known as network integration works.

When government approved the 2015 WestConnex Business Case, it noted that the project would require $1.534 billion for network integration works to address the impacts of WestConnex on the road network. However, the WestConnex project budget of $16.812 billion did not include funding for network integration works. Instead, Roads and Maritime Services (RMS, now TfNSW) was to fund network integration through its normal budget allocation.

It is important to recognise these costs as part of the total WestConnex project cost because:

- TfNSW created the Network Integration Program to respond to network traffic and transport elements of the planning conditions of approval for WestConnex granted by the then NSW Department of Planning and Environment under the *Environment, Planning and Assessment Act 1979*.
- NSW Treasury guidelines for business cases note that accurate cost estimates include assessment of the financial impact of meeting the conditions of planning approval.
- Travel time and vehicle operating cost benefits attributed to the WestConnex project in the 2015 WestConnex Business Case assume that some network integration works, then costed at $373 million, were in place.

Refer to Appendix two for more detail on network integration works.

Some of the projects in the WestConnex Network Integration Program provide community and place benefits, such as parklands and cycleways. These benefits have not been attributed to WestConnex. Additionally, some network integration works are likely to deliver additional traffic related benefits to WestConnex. As the Network Integration Program's primary purpose is to meet the conditions of planning approval for WestConnex, TfNSW should attribute all the costs and benefits of the program to WestConnex.

To September 2021, the total funded cost of the Network Integration Program is approximately $2.077 billion. TfNSW estimates that it will need a further $222 million to complete all expected network integration works.

The NSW Government's decision to separate Sydney Gateway from WestConnex has reduced transparency and accountability for TfNSW's underestimation of the cost of the road component of Sydney Gateway

Sydney Gateway is a high-capacity connection between the new St Peters Interchange and the Sydney Airport and Port Botany precinct. It includes a road and rail components. The road component was included in the scope of WestConnex in the 2015 WestConnex Business Case. The November 2015 design, which TfNSW costed at $800 million, involved separate roadways from the St Peters Interchange to the International terminal, and to the domestic terminals and Mascot airport precinct.

By October 2016, TfNSW was aware that the $800 million budget for Sydney Gateway was insufficient and revised the forecast cost for the road component to $1.8 billion. The original cost estimate did not sufficiently consider the cost of:

- constructing a complex design adjacent to the airport precinct
- obtaining access to land required for the project
- managing environmental contamination.

On 9 August 2017, the then Minister for WestConnex announced that the Sydney Gateway project was not part of WestConnex.

The 2015 WestConnex Business Case notes that material changes to the WestConnex budget, funding, scope, or timeframe are subject to Cabinet approval processes. It states that, when seeking approval for material changes, the portfolio Minister will make a submission to the relevant Cabinet Committee. Changes in project scope required the approval of the then Cabinet Committee on Infrastructure and should have been endorsed by the WestConnex Interdepartmental Steering Committee.

TfNSW and the NSW Department of Premier and Cabinet (DPC) assert that there is no documentation to support the government’s decision to separate Sydney Gateway from the WestConnex Program, or the WestConnex Interdepartmental Steering Committee's endorsement of a submission to Cabinet seeking approval for the separation.

The established governance processes for major scope changes were not followed in this instance. The lack of transparency regarding government's decision to separate Sydney Gateway from WestConnex also reduces visibility of TfNSW's underestimation of the cost of delivering the road component of Sydney Gateway.

The November 2018 Final Business Case for Sydney Gateway, which was approved by the government, included an estimate of $2.45 billion (nominal outturn cost) for the road component. This estimate included an $800 million contribution from WestConnex. A more recent estimate (late 2020) for this project is $2.56 billion (nominal outturn cost).

The Parramatta Road Urban Amenity Improvement Program should be included as part of the WestConnex budget

A specific objective of the 2015 WestConnex Business Case was the creation of opportunities for urban renewal along and around Parramatta Road. The business case included an allocation of $198 million in the $16.812 billion WestConnex budget for the Parramatta Road Urban Amenity Improvement program, designed to implement aspects of the objective. In November 2018, the NSW Government removed the Parramatta Road Urban Amenity Improvement Program from the WestConnex program of works and reallocated the $198 million (inside the $16.812 billion WestConnex budget) for urban renewal works around the Rozelle Interchange. As part of this decision, government approved new funding of $198 million to the Greater Sydney Commission for the urban amenity program, outside the $16.812 billion WestConnex budget. This understates the cost of WestConnex meeting its objectives by $198 million.

There is no requirement for ongoing 'whole-of-program' assurance of the WestConnex program of works, including related projects

In August 2015, INSW conducted its first Gateway Review of WestConnex as a program consisting of composite projects. Following that review, TfNSW registered each of the components of WestConnex with INSW as individual projects, rather than keeping WestConnex registered as a program or mega-project. This is not inconsistent with the IIAF and all WestConnex related projects, including Sydney Gateway and the Network Integration Program, have undergone independent assurance reviews as individual projects under the IIAF.

Once a program like WestConnex is broken down into its composite parts, there is no requirement for the sponsor agency (TfNSW) or INSW to provide independent assurance on the program as a whole until it is completed. This is then done as part of the Gateway review for benefits realisation, which examines whether project benefits are being measured and meet expectations. These individual projects are, in themselves, significant in scale and complexity. While addressing them as discrete components for the purposes of the assurance review process can be justified, the absence of strategic, holistic reviews of WestConnex allows for total costs and benefits to become opaque and avoid scrutiny. Programs of this scale require greater ongoing transparency on total costs and benefits in order to ensure confidence they will meet intended objectives within budget.

There is a lack of public transparency on the total costs and benefits of the WestConnex project

Prior to 2018, the Audit Office provided assurance on costs borne and levied by Sydney Motorway Corporation and its controlled entities. Since the NSW Government sold 51 per cent of its stake in WestConnex in August 2018, the Auditor-General no longer has the mandate to provide this assurance. The Audit Office is also unable to provide any assurance regarding the performance of tolling concessions.

This means that the total costs of WestConnex, including those levied on road users through tolling, are not reported alongside the full cost of delivering the project. This information, and independent assurance over that information, would provide transparency and context to the outcome of government's sale of its interest in WestConnex.

To enhance the transparency of existing infrastructure assurance processes, government could consider requiring large and complex infrastructure programs to undergo periodic review at a whole-of-program level. This could take the form of annual reports to Parliament on the total costs and benefits of selected large and complex projects by the responsible agency. The reports could include an assessment of the cost to government and cost to the community of funding and financing. Independent assurance of the agency report would provide Parliament with greater confidence that infrastructure is delivered economically and providing value for money for the people of NSW.

The Australian National Audit Office provides similar assurance on selected Department of Defence acquisition projects as part of its annual Major Projects Report.

Design enhancements included in the 2015 WestConnex Updated Strategic Business Case were supported by robust analysis

The 2015 WestConnex Business Case contained more detail than the 2013 WestConnex business case. Design enhancements were made as a result of modelling analysis conducted over the two years since the 2013 business case. Enhancements included a full underground link between Kingsgrove and St Peters as part of the New M5 and re-alignment of the M4-M5 link tunnel (Stage 3) to include the Rozelle Interchange. The Rozelle Interchange will provide a direct connection to the Anzac Bridge and Victoria Road, and will enable a connection to the proposed Western Harbour Tunnel and Beaches Link. A map and description of these elements can be found at Exhibits 2 and 3 of this report.

In 2016, TfNSW revised the design of the M4-M5 Link and Rozelle to address traffic and integration issues

As part of preparing the 2015 WestConnex Business Case, TfNSW prepared a Project Definition and Delivery Report (PDDR) for the M4-M5 Link. This report describes the scope of the project, including a high-level concept design. TfNSW identified limitations with the proposed design of the M4-M5 in the PDDR, which it would need to address as the project moved to a detailed design stage. In particular, these limitations included:

- poor integration with the Bays Precinct masterplan
- traffic capacity constraints on Victoria Road and Anzac Bridge
- construction complexity.

Following a comprehensive review in mid-2016, TfNSW changed the design of the M4-M5 Link and Rozelle Interchange to address these limitations. These changes included:

- deletion of the Camperdown intersection to improve traffic conditions on Parramatta Road
- a fully underground and larger Rozelle Interchange with 10-hectare dedicated parklands
- a toll-free tunnel link from Iron Cove Bridge to Anzac Bridge
- increasing the lanes in the dual tunnels from three to four each way.

TfNSW documented, but did not publish, the rationale for the design changes, including how the changes addressed the limitations of the previous design while providing increased community benefit through the creation of open space. TfNSW undertook cost comparison studies which estimated that these changes would have a neutral impact on the estimated project cost while achieving the same or improved benefits.

TfNSW's record-keeping systems for large infrastructure investments negatively impact accountability and transparency

In response to our formal requests for relevant information, made during the conduct of this audit, TfNSW advised that complete and valid records of key decision-making processes, analysis and advice were unavailable. Additionally, TfNSW often provided information that was incomplete or unverifiable (for instance, unsigned briefing notes). This is not consistent with accepted governance practices and does not comply with the requirements of the *State Records Act 1998.*

We also requested that TfNSW provide a list of relevant documents held by the Sydney Motorway Corporation (SMC). While TfNSW acknowledged that SMC may hold material relevant to the audit, TfNSW did not have a list or description of these documents. As SMC is now a majority privately held entity, both the Audit Office and TfNSW have limited power to require SMC to provide documentation.

The delivery timeframe for large and complex infrastructure projects such as WestConnex frequently exceeds five years, and some projects can take over a decade to deliver. These projects represent a significant investment of public resources and government agencies should expect independent review and assurance activities such as performance audits. The establishment of dedicated record keeping facilities for major infrastructure projects, such as data rooms, would improve transparency and accountability. This would ensure that the use of public resources is fully auditable in line with public expectations and the requirements of the *Government Sector Finance Act 2018*, the *State Records Act 1998* and the *Public Finance and Audit Act 1983*.

2. Recommendations

By December 2021, TfNSW should:

1. review the impact of scope changes on project objectives, costs and benefits for complex infrastructure projects
2. when preparing business cases for complex large infrastructure projects, ensure that the estimated costs and benefits of works which are reasonably expected to meet consent conditions are included in the overall project cost and its benefits (as per Treasury guidelines)
3. establish and maintain centralised and project-specific record keeping, including through dedicated project data rooms, to ensure major infrastructure projects can readily be subject to external oversight and assurance.

By June 2022, INSW should:

4. provide transparent whole-of-program assurance on total costs and benefits throughout the project life-cycle when complex projects are split into sub-projects.

By June 2022, government should:

5. consider enhancing the public transparency of existing infrastructure assurance processes by requiring that large complex infrastructure programs undergo periodic review at a whole-of-program level. This could take the form of reports to Parliament on the total costs and benefits on selected large and complex projects by the responsible agency, including cost to government and cost to community of funding and financing, as well as an accompanying independent assessment of the agency report.

1. Introduction

1.1 WestConnex at a glance

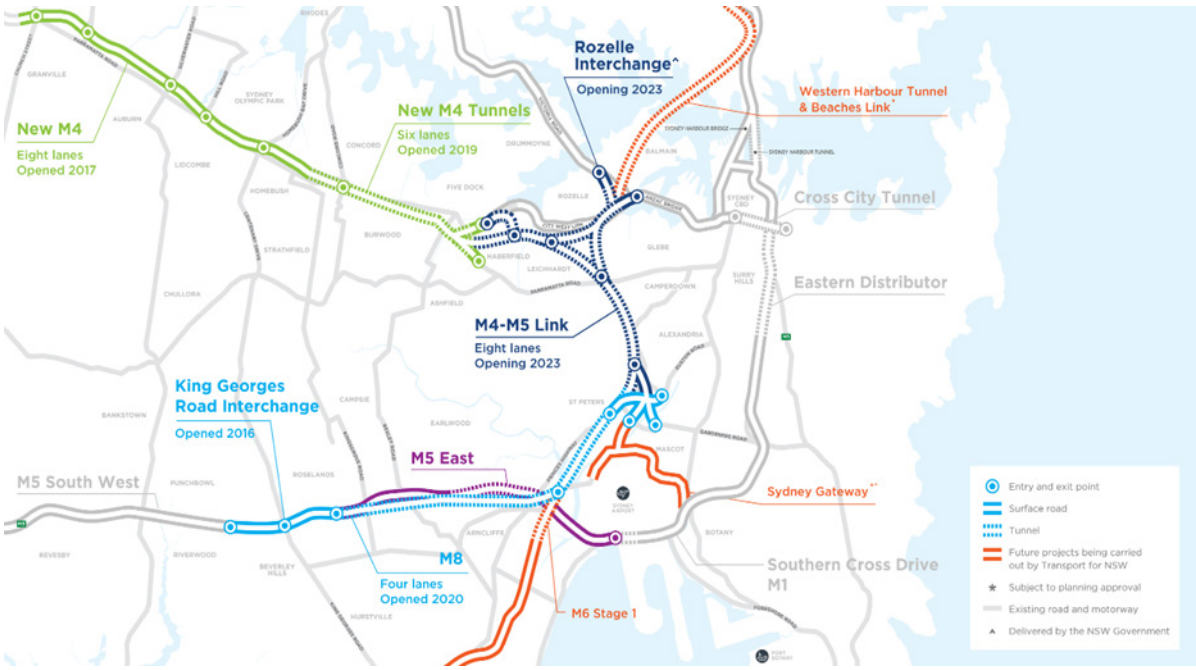
WestConnex is a 33 km motorway network that will link the western and south-western suburbs with the Sydney CBD and the Airport/Port Botany precinct. It will also connect with proposed motorway links to the north shore, northern beaches, and southern Sydney. The project is scheduled for completion in 2023. The current design for WestConnex is shown in Exhibit 2.

The NSW Government asked Infrastructure NSW to provide advice on Sydney's next motorway priority as part of its work in developing the State Infrastructure Strategy. An integrated team from Infrastructure NSW, Transport for NSW, Roads and Maritime Services and the private sector developed the concept paper. In October 2012, government announced it would proceed with Infrastructure NSW's recommendation to develop a business case for WestConnex. The business case was developed by the Sydney Motorways Project Office overseen by the Sydney Motorways Steering Committee. In August 2013, government approved a business case for an integrated concept of WestConnex, with an estimated cost of $14.881 billion (in nominal outturn costs).

In November 2015, the NSW Government updated the WestConnex business case with greater detail and design enhancements, which increased the estimated cost to $16.812 billion as shown in Exhibits 3.

Subsequent to this update, further changes were made to the design, including realignment of the M4 to M5 Link connection to the Western Harbour Tunnel project, an expanded interchange at Rozelle, the deletion of the Camperdown Intersection, and the addition of the Iron Cove Link. The reported budget was not changed as a result of these design updates.

Exhibit 2: WestConnex schematic design



Source: NSW Government.

Exhibit 3: WestConnex stages and stage costs

Stage	Project	Description	Construction	Estimated cost*
Stage 1	Stage 1A M4 widening (Parramatta to Homebush)	• Widened the existing M4 Motorway from Parramatta to Homebush.	• Construction commenced March 2015. • Opened to traffic in July 2017.	$497 million
	Stage 1B M4 East (Homebush to Haberfield)	• Extends the M4 Motorway in dual tunnels between Homebush and Haberfield via Concord. • Includes provision for future connection to M4-M5 Link.	• Construction began March 2015. • Opened to traffic in July 2019.	$3.802 billion
Stage 2	King Georges Road Interchange Upgrade (Beverly Hills)	• Upgrade of the King Georges Road Interchange between the newly widened M5 West and the M5 East at Beverly Hills, in preparation for the New M5 (M8).	• Construction began July 2015. • Opened to traffic in December 2016.	$131 million
	New M5 (Beverley Hills to St Peters) Now known as WestConnex M8	• Duplicating the M5 East from King Georges Road in Beverly Hills with dual tunnels from Kingsgrove to a new interchange at St Peters. • The St Peters Interchange allows for connections to the Sydney Gateway. • The New M5 tunnels include provision for a future connection to the M4-M5 Link.	• Construction began in July 2016. • Tunnelling began in November 2016. • Opened to traffic on 5 July 2020.	$4.335 billion
	Sydney Gateway**	• A high-quality, high-capacity connection between the new St Peters Interchange and the Sydney Airport and Port Botany precinct.	• Construction began in late 2020. • Expected to open to traffic in late 2024.	$800 million contribution

Stage	Project	Description	Construction	Estimated cost*
Stage 3	M4-M5 Link (Haberfield to St Peters)	• Twin Tunnels between M4 East at Haberfield and the New M5 (M8) at St Peters Interchange and stub tunnels to the Rozelle Interchange.	• Construction began in 2018. • Expected to open to traffic in late 2023.	$7.247 billion
	Rozelle Interchange	• Rozelle Interchange connects the M4-M5 Link to the Anzac and Iron Cove bridges, and the future Western Harbour Tunnel. The Rozelle Interchange is almost entirely underground, freeing up space for a new 10-hectare regional park.	• Construction began in 2019. • Expected to open to traffic in late 2023.	

* Estimated cost in nominal outturn dollars.

** Government separated the Sydney Gateway from WestConnex in 2017, NSW LA Parliamentary Debates (Hansard) 9 August 2017, p 928.

Source: WestConnex Updated Strategic Business Case November 2015, p 18 and 24.

1.2 WestConnex funding and financing

TfNSW granted three separate concessions to Sydney Motorway Corporation (SMC) – then a government owned business – to build, finance, operate and maintain WestConnex for a certain period before handing the motorway back to TfNSW in the required condition. In return for these services, SMC may collect tolls on a contractually agreed basis. TfNSW remains at all times the owner of the motorway. The respective terms of all WestConnex concessions expire on 31 December 2060.

On 31 August 2018, the NSW Government announced the sale of 51 per cent of the government's equity stake in SMC. Financial close was achieved on 27 September 2018. The sale price was $9.26 billion. At the time of writing, the NSW Government is in the process of selling its remaining 49 per cent stake of SMC.

There is a lack of public transparency on the total costs and benefits of the WestConnex project

Prior to 2018, the Audit Office provided assurance on costs borne and levied by SMC and its controlled entities. Since the NSW Government sold 51 per cent of its stake in WestConnex in August 2018, the Auditor-General no longer has the mandate to provide this assurance. We are also unable to provide any assurance regarding the performance of tolling concessions.

This means that the total costs of WestConnex, including those levied to the community through tolling, are not reported alongside the full cost of delivering the project. This information, and assurance on that information, would provide transparency and context to the outcome of government's sale of its interest in WestConnex.

1.3 2014 Performance audit on WestConnex: Assurance to the government

In December 2014 the Audit Office conducted a performance audit of the WestConnex business case review process titled 'WestConnex: assurance to the government'. The audit assessed whether the assurance processes for the WestConnex project provided effective independent assurance to the NSW Government and improved project development and delivery. The audit did not assess the merits of the project or whether it represented value for money.

The audit found that the independent assurance provided to the government did not meet best practice standards outlined in the Major Projects Assurance Framework, which was in place at that time. The audit recommended that responsible agencies ensure the Major Projects Assurance Framework is fully and effectively implemented for all major capital projects ($100 million or more).

1.4 About this audit

This audit assessed whether TfNSW and INSW effectively assessed and justified major scope changes to the WestConnex project since the 2014 performance audit.

The audit examined the November 2015 Updated Strategic Business Case and related projects that were necessary for WestConnex to fully realise its stated objectives and benefits. Major scope changes included:

- WestConnex Stage 2 Works:
  - removal of Sydney Gateway from WestConnex
- WestConnex Stage 3 Works:
  - realignment of the M4 to M5 Link to enhance connection to the Western Harbour Tunnel project including an expanded interchange at Rozelle, the deletion of the Camperdown Intersection and addition of the Iron Cove Link.

Related projects included:

- Sydney Gateway (at Sydney Airport) to Port Botany enabling road works
- WestConnex Enabling works (Later named Network Integration Program).

The audit considered whether relevant agencies:

- effectively assessed the impact of major scope changes on the rationale, need, and objectives of the project as a whole
- effectively assessed the impact of major scope changes on the costs of the project as a whole
- effectively considered the impact of major scope changes on benefits of the project as a whole.

The audit also investigated whether major scope changes complete all of the required independent assurance reviews.

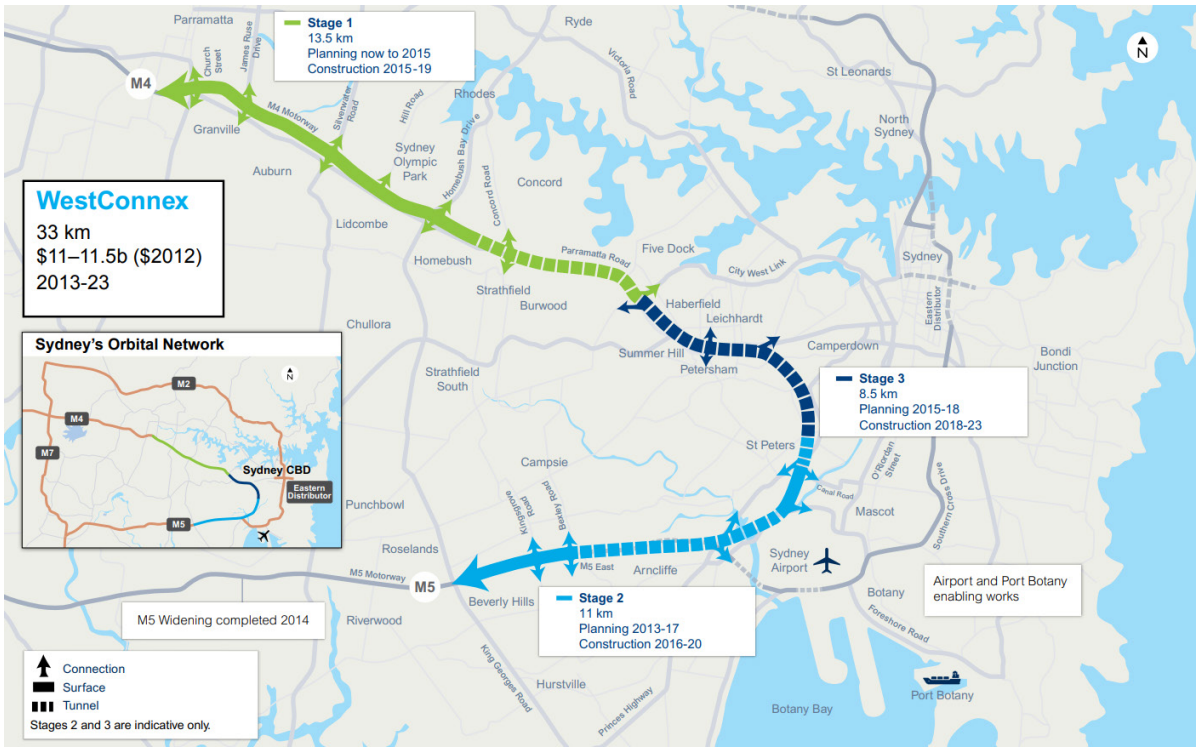
This audit did not seek to question the merits of government policy objectives.

2. WestConnex

2.1 The 2013 WestConnex Business Case

The WestConnex Business Case, completed in July 2013, included a reference scheme for a significant motorway project with a capital cost of $14.881 billion in nominal outturn cost. The below schematic (Exhibit 4), provides an outline of the individual stages of the project as described in the business case.

Exhibit 4: WestConnex design (July 2013 WestConnex Business Case)



Source: NSW Government.

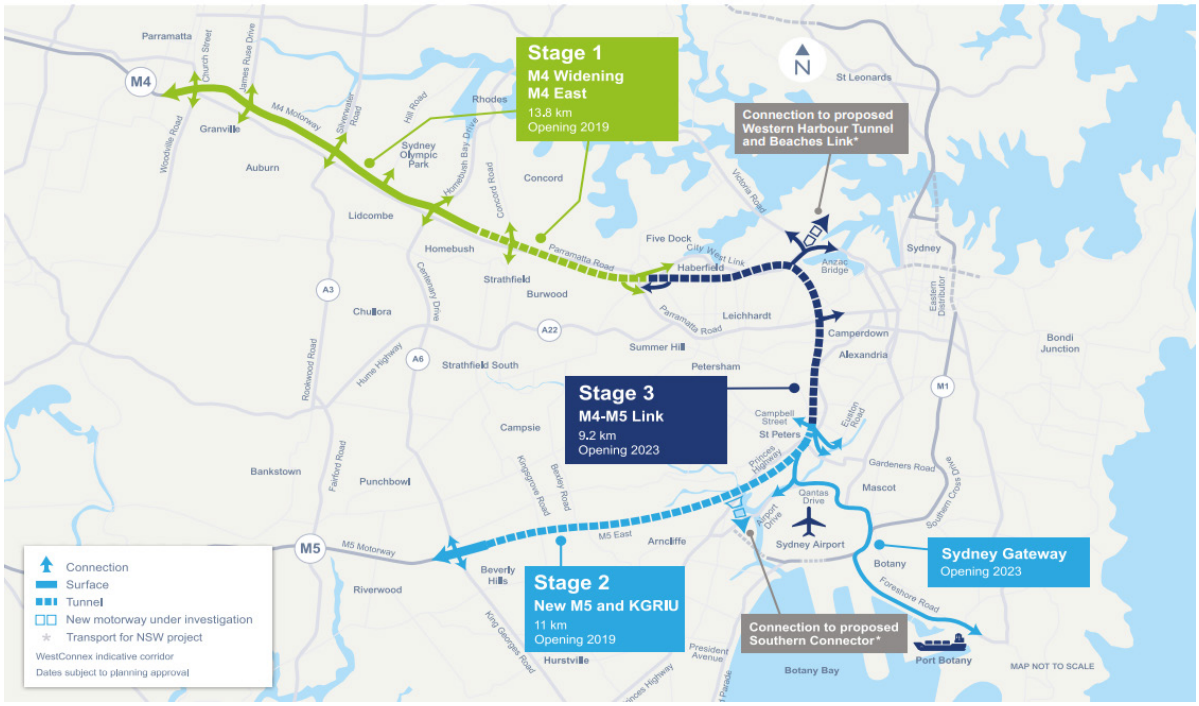
In this business case, the stated objectives for WestConnex included:

- improve motorway access and connections linking Sydney's international gateways, Western Sydney, and key places of business across the city
- relieve road congestion to improve speed, reliability, and safety of travel in the M4, M5 and CBD/airport/port corridors, including parallel arterial roads
- cater for the diverse travel demands along these corridors that are best met by road infrastructure
- create opportunities for urban renewal, improved liveability and public and active transport along and around Parramatta Road.

2.2 The 2015 WestConnex Updated Strategic Business Case

In November 2015, government released a public version of a revised business case for WestConnex. This business case was a significant advance on the detail contained within the July 2013 WestConnex business case and included changes to the project's scope and total cost. See Exhibit 5 for a schematic layout, including individual stages of the project. Details of each stage are in Exhibit 6.

Exhibit 5: WestConnex design (November 2015 Updated Strategic Business Case)



Source: NSW Government.

Exhibit 6: WestConnex stages (November 2015 Updated Strategic Business Case)

Stage	Sub-project	Description
Stage 1	Stage 1A – M4 Widening (Parramatta to Homebush)	Widening the existing M4 Motorway from Parramatta to Homebush.
	Stage 1B – M4 East (Homebush to Haberfield)	Extending the M4 Motorway in tunnels between Homebush and Haberfield via Concord. Includes provision for the future connection to M4-M5 Link.
Stage 2	New M5 (Beverly Hills to St Peters)	Duplicating the M5 East from King Georges Road in Beverly Hills with tunnels from Kingsgrove to a new interchange at St Peters. The St Peters Interchange allows for connections to the Sydney Gateway. The New M5 tunnels include provision for a future connection to the proposed Southern Connector (part of Gateway to the South) and the M4-M5 Link.
	King Georges Road Interchange Upgrade (Beverly Hills)	Upgrade of the King Georges Road Interchange between the newly widened M5 West and the M5 East at Beverly Hills, in preparation for the New M5.
	Sydney Gateway (St Peters to Sydney Airport and Port Botany)	A high-quality, high-capacity connection between the new St Peters Interchange and the Sydney Airport and Port Botany precinct.
Stage 3	M4-M5 Link (Haberfield to St Peters)	Tunnels connecting to the M4 East and New M5 via Rozelle and Camperdown. Includes ramps connecting to the St Peters Interchange and an interchange at Rozelle with provision for a future connection to the Western Harbour Tunnel and Beaches Link.

Source: Transport for NSW.

In the 2015 business case, the capital budgeted cost of WestConnex was $16.812 billion in nominal outturn cost. This represented an increase of approximately $2.0 billion from the estimated capital cost in the 2013 business case. The additional costs primarily comprised of extension of the M4-M5 link towards Rozelle and an enhanced design for Sydney Gateway (See Exhibit 7).

The key scope changes to WestConnex from between the 2013 and 2015 business cases included following:

- Acceleration of delivery of the New M5 tunnels and confirmation of revised design (Stage 2). The New M5 design includes a full underground link between Kingsgrove and St Peters, with completion brought forward from 2020 to 2019 (the 2013 Business Case described an above ground motorway connection between St Peters and Tempe).
- Realignment of the M4-M5 link tunnel (Stage 3). The M4-M5 link originally followed Parramatta Road to Camperdown but was modified to duplicate the City West link to Rozelle before heading south. The realignment included a northern extension (the Rozelle Interchange) to provide direct connection to the Anzac Bridge and Victoria Road and enable a connection to the proposed Western Harbour Tunnel and Beaches Link.
- Inclusion of an enhanced base case design option for the airport link (Sydney Gateway). See Section 3.2 for more information.

Exhibit 7: Summary of additional costs from 2013 to November 2015 business cases

2013 business case	2013 business case (Nominal outturn) ($ million)	2013 business case + additions ($ million)	
Stage 1	4,197	Enhanced Sydney Gateway	402
Stage 2	4,737		
Stage 3	5,947	Extension of Stage 3 to Anzac Bridge, Victoria Road, and the future Western Harbour Tunnel and Beaches Link	1,207
		Acceleration costs and associated costs for scope enhancements	322
Total	**14,881**	2013 business case	14,881
		November 2015 business case total	**16,812**

Source: WestConnex Updated Strategic Business Case November 2015.

The 2015 business case estimated $22.2 billion in benefits, with a benefit cost ratio of 1.71. The benefits were mostly non-cash, meaning they are derived from reduced travel time and vehicle operating costs. Specific estimates of these benefits listed in the November 2015 WestConnex Updated Strategic Business Case include:

- travel time saved ($12.9 billion)
- increased travel time reliability ($1.47 billion)
- reduced vehicle operating costs ($6.18 billion)
- other benefits ($1.65 billion).

The project objectives stated in the November 2015 WestConnex Updated Strategic Business Case were identical to those in the July 2013 business case, except for the addition of two new objectives from the 2014 NSW State Infrastructure Strategy. These were that WestConnex should be able to link with an additional harbour crossing and northern beaches motorway, and to connect with the F6 extension towards Illawarra.

The November 2015 Updated Strategic Business Case states the objectives of WestConnex are to:

- support Sydney's long-term economic growth through improved motorway access and connections linking Sydney's international gateways, western Sydney and key places of business across the city
- relieve road congestion to improve the speed, reliability and safety of travel on the M4, M5 and CBD/airport/port corridors, including parallel arterial roads
- cater for the diverse travel demands along these corridors that are best met by road infrastructure
- create opportunities for urban renewal, improved liveability and public and active transport improvements along and around Parramatta Road
- enhance the productivity of commercial and freight-generating land uses strategically located near along the corridor
- fit within the financial capacity of the State and Australian Governments, in partnership with the private sector
- optimise user-pays contributions to support funding in a way that is affordable, equitable and fair
- provide the ability for an additional Sydney Harbour road crossing, the Western Harbour Tunnel and Beaches Link, to connect to WestConnex
- support improved connectivity between Sydney, the Sutherland Shire, and the Illawarra; with the ability for the proposed 'Gateway to the South' project to connect to WestConnex.

Government decisions to redefine and separate parts of WestConnex into discrete projects have reduced transparency over costs and understate the full cost of WestConnex

In the November 2015 WestConnex Updated Strategic Business Case, the work required to integrate WestConnex with existing roads ('network integration') was funded as a separate project with an estimated budget of $1.534 billion outside the 2015 WestConnex budget of $16.812 billion. TfNSW created the Network Integration Program to respond to the conditions of planning approval for WestConnex. The current estimated cost to deliver all network integration works is $2.3 billion.

Since then, the NSW Government has also removed several elements from the scope of WestConnex and funded them as separate projects, while keeping the published WestConnex budget at an estimated $16.812 billion. Projects removed include:

- Sydney Gateway, costed at $2.56 billion (with an $800 million contribution from WestConnex)
- Parramatta Road Urban Amenity Improvement Program, costed at $198 million in late 2018 and funded though new funding to the Greater Sydney Commission.

Together, these projects represent costs of $4.26 billion that are not included in the WestConnex budget, but are required for WestConnex to achieve the objectives of the 2013 and 2015 WestConnex Business Cases. The costs of these elements in supporting the objectives of WestConnex is not tracked centrally, and there is no single point of oversight over them. See Exhibit 1 for a comparison between the total WestConnex forecast costs (including related projects) between November 2015 and April 2021.

TfNSW's record-keeping systems for large infrastructure investments negatively impact accountability and transparency

In response to our formal requests for relevant information, made during the conduct of this audit, TfNSW advised that complete and valid records of key decision-making processes, analysis and advice were unavailable. Additionally, TfNSW often provided information that was incomplete or unverifiable (for instance, unsigned briefing notes). This is not consistent with accepted governance practices.

We also requested that TfNSW provide a list of relevant documents held by SMC. While TfNSW acknowledged that SMC may hold material relevant to the audit, TfNSW did not have a list or description of these documents. As SMC is now a majority privately held entity, TfNSW now has limited power to require SMC to provide documentation.

The delivery timeframe for large and complex infrastructure projects such as WestConnex frequently exceeds five years, and some projects can take over a decade to deliver. These projects represent a significant investment of public resources and government agencies should expect independent review and assurance activities such as performance audits. The establishment of dedicated record keeping facilities for major infrastructure projects, such as data rooms, would improve transparency and accountability. This would ensure that the use of public resources is fully auditable in line with public expectations and the requirements of the *Government Sector Finance Act 2018*, the *State Records Act 1998* and the *Public Finance and Audit Act 1983*.

3. WestConnex scope changes

3.1 Network Integration Program

The Network Integration Program includes 'enabling works needed before or during construction, as well as works designed to address adverse traffic outcomes related to WestConnex which become apparent after its opening.

When government approved the WestConnex 2015 Updated Strategic Business Case, it noted that the project would require $1.534 billion for network integration works to address the impacts of WestConnex on the road network. However, the WestConnex project budget of $16.812 billion did not include funding for network integration works. Instead, RMS, (now TfNSW) was to fund network integration through its normal budget allocation.

Refer to Appendix two for more detail on network integration works.

Prior to 2015, the scope of WestConnex included network integration works

In its September 2013 State Significant Infrastructure Application for the M4 East, RMS included network integration works in the scope of WestConnex. The application noted that the project included 'associated road works on arterial roads in the vicinity of the project corridor such as Concord Road and City West Link' and 'these road works may include reconfiguration of lanes and changes to traffic signalling as well as associated road works at locations to be determined during further concept development'.

In addition, the 2014–15 State Budget noted that the WestConnex project included the following network integration works as part of the project scope:

- surface road improvements within St Peters ($679 million)
- additional ramps to Hill Road ($20.0 million).

The modelling used to calculate benefits attributable to WestConnex included the impact of several network integration projects costing around $373 million

Travel time and vehicle operating cost benefits attributed to the WestConnex program in the November 2015 Updated Strategic Business Case assume that some of the network integration works were in place. These were:

- Campbell Road/Euston Road works (including property acquisition) - $353 million
- Hill Road Eastbound On ramp - $20.0 million.

Many network integration costs are directly attributable to WestConnex and ought to be included in the reported budget for WestConnex

Major road infrastructure projects such as WestConnex must obtain planning approval under the *Environmental Planning and Assessment Act 1979*. Approval may include a range of consent conditions which must be met by the proponent, being TfNSW in the case of WestConnex. Typically, consent conditions are intended to address any adverse impacts on the surrounding community caused by the project. The Network Integration Program was created within TfNSW to respond to network traffic and transport elements of the Planning Conditions of Approval for WestConnex granted by the then NSW Department of Planning and Environment.

NSW Treasury guidelines for business cases note that accurate cost estimates include assessment of the financial impact of meeting the conditions of planning approval.

Some of the projects in the WestConnex Network Integration Program provide community and place benefits, such as parklands and cycleways. Additionally, some network integration works are likely to deliver additional traffic related benefits to WestConnex. These benefits have not been attributed to WestConnex. As the Network Integration Program's primary purpose is to meet the conditions of planning approval for WestConnex, TfNSW should attribute all the costs and benefits of the program to WestConnex.

The total funded cost of network integration is at least $2.077 billion, excluding $222 million TfNSW estimates it requires to meet all known environmental planning consent conditions

The estimated cost of meeting all planning consent conditions of approval for WestConnex could be approximately $765 million more than the Network Integration Program budget of $1.534 billion. This amount includes:

- $353 million for Rozelle Interchange (Stage 3) network integration works, separately approved and funded from consolidated revenue
- $190 million for Stage 2 New M5 (M8) global settlement of contractor claims, separately approved and funded from the TfNSW cluster budget
- $222 million shortfall from the $1.534 billion approved budget to implement all known network integration works needed to meet environmental planning consent conditions for WestConnex. This estimate does not include other potential network integration works that might be identified following the post-completion traffic studies required under the planning consent conditions.

As TfNSW is managing network integration as a project separate from WestConnex, these costs are not being reported as part of the $16.812 billion WestConnex budget. This separation means that the full cost of WestConnex meeting its objectives will be understated. These works and their costs should be included in the benefit-cost considerations for WestConnex so that government has accurate information when making, modifying, or maintaining investment decisions.

3.2 Sydney Gateway

Sydney Gateway is an infrastructure project which aims to increase transport capacity and connections between the Sydney transport network, Sydney Airport and Port Botany. Refer to Exhibits 2 and 5 for schematic designs. The project includes:

- a road component consisting of a motorway from the St Peters Interchange to the international terminal and road upgrades to improve access to Sydney Airport domestic Terminals 2 and 3 (funded by NSW Government)
- a rail component consisting of the duplication of the freight rail line between Mascot and Port Botany (funded by the Australian Government).

The analysis in this report focusses on the road component of Sydney Gateway.

In November 2015, TfNSW revised the design for the road component of Sydney Gateway to meet projected traffic needs

In mid-2015, INSW commissioned a scoping options study to assess the relative costs and benefits of several design options for the road component of Sydney Gateway. The study recommended a revised design in order to meet traffic needs after 2031. The revised design was costed at $800 million (inclusive of contingency and property acquisition).

In November 2015, government endorsed an $800 million enhanced base case roadway design for Sydney Gateway (as part of WestConnex Stage 2).

The enhanced base case design referred to in the 2015 Updated Strategic Business Case included:

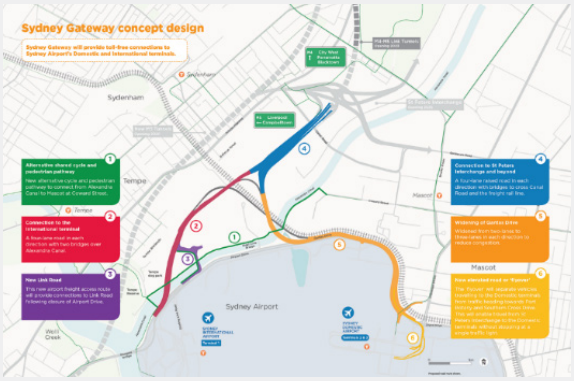
- a satellite interchange on Sydney Airport's northern lands allowing free-flow traffic movement between WestConnex, the international terminal, and the domestic terminals
- the extension of Qantas Drive to link with the satellite interchange
- a flyover from Qantas Drive to Joyce Drive next to the O'Riordan Street and Robey Street Intersection to separate port traffic from traffic using the domestic terminals
- a new arterial road north of Sydney Airport that directly connects the international terminal to St Peters Interchange via the satellite interchange.

TfNSW included the enhanced base case design in its traffic modelling to calculate the benefits of WestConnex in the WestConnex 2015 Updated Strategic Business Case.

Exhibit 8: Schematic representations of the enhanced base case design and the current design for WestConnex

Draft briefing note to the Minister for Roads – November 2015

Sydney Gateway Concept Design Overview – Autumn 2019



Sources: Transport for NSW (2015 and 2019).

In 2015, TfNSW significantly underestimated the cost of the road component for the Sydney Gateway

By October 2016, TfNSW became aware that the $800 million budget for Sydney Gateway was insufficient and revised the forecast cost for the road component to $1.8 billion. TfNSW attributed the forecast increase to:

- higher than anticipated construction costs
- extensive environmental contamination
- land acquisition expenses and challenges in accessing land
- relocation and protection of major utilities and services
- extension of the completion date to 2023.

In our view, the original cost estimate did not sufficiently consider the cost of:

- constructing a complex design adjacent to the airport precinct
- obtaining access to land required for the project.

In July 2017, TfNSW noted that it could deliver only the roadway to the international terminal within the $800 million budget, and that the cost of the domestic terminal roadway and precinct was not funded.

The November 2018 Final Business Case for Sydney Gateway, approved by government, included an estimate for the motorway component of $2.45 billion (nominal outturn cost). This estimate included an $800 million contribution from WestConnex. A more recent estimate (late 2020) for this project is $2.56 billion (nominal outturn cost).

There is a lack of transparency regarding government's decision to separate Sydney Gateway from WestConnex

On 9 August 2017, the then Minister for WestConnex announced that the Sydney Gateway project was not part of WestConnex. The Minister noted that the budget for WestConnex ($16.812 billion) included an $800 million allocation for Sydney Gateway to improve access to Sydney Airport and the port.

The November 2015 WestConnex Updated Strategic Business Case states that material changes to the WestConnex budget, funding, scope of timeframe are subject to Cabinet-approval processes. It states that, when seeking approval for material changes, the portfolio Minister will make a submission to the relevant Cabinet Committee. Changes in project scope required the approval of the then Cabinet Committee on Infrastructure and should have been endorsed by the WestConnex Interdepartmental Steering Committee (WISC).

While we have seen documents supporting the establishment of a separate steering committee in April 2017 to support the design and negotiation required for the development of Sydney Gateway, the documents note that Sydney Gateway was still a part of the WestConnex program of works. TfNSW and the NSW Department of Premier and Cabinet assert that there was no documentation that demonstrates proper consideration or due diligence of the government's decision to separate Sydney Gateway from WestConnex, or the WISC's endorsement of a submission to Cabinet seeking approval for the separation.

Established governance processes for major scope changes were not followed in this instance. The lack of transparency regarding government's decision to separate Sydney Gateway from WestConnex also reduces visibility of TfNSW's underestimation of the cost of delivering the road component of Sydney Gateway and is inconsistent with appropriate stewardship of government resources.

TfNSW did not recalculate the costs and benefits of WestConnex after government made the decision to separate Sydney Gateway from WestConnex

TfNSW included travel time and vehicle operating cost savings attributable to Sydney Gateway in the economic appraisal for WestConnex in the November 2015 Updated Strategic Business Case.

In August 2017, following separation of Sydney Gateway from the scope of WestConnex, TfNSW retained the $800 million amount for Sydney Gateway (as a contribution) in the WestConnex budget. TfNSW justified this on the basis that Sydney Gateway's direct benefits to WestConnex were maintained with that contribution.

However, the Sydney Gateway 2019 Business Case includes travel time savings that were previously included in the 2015 WestConnex Updated Strategic Business Case. There is no evidence that government considered the impact of removing these benefits from WestConnex when it decided to separate Sydney Gateway from WestConnex.

While there is no requirement in existing government policy, TfNSW could have recalculated WestConnex costs and benefits in one of two ways:

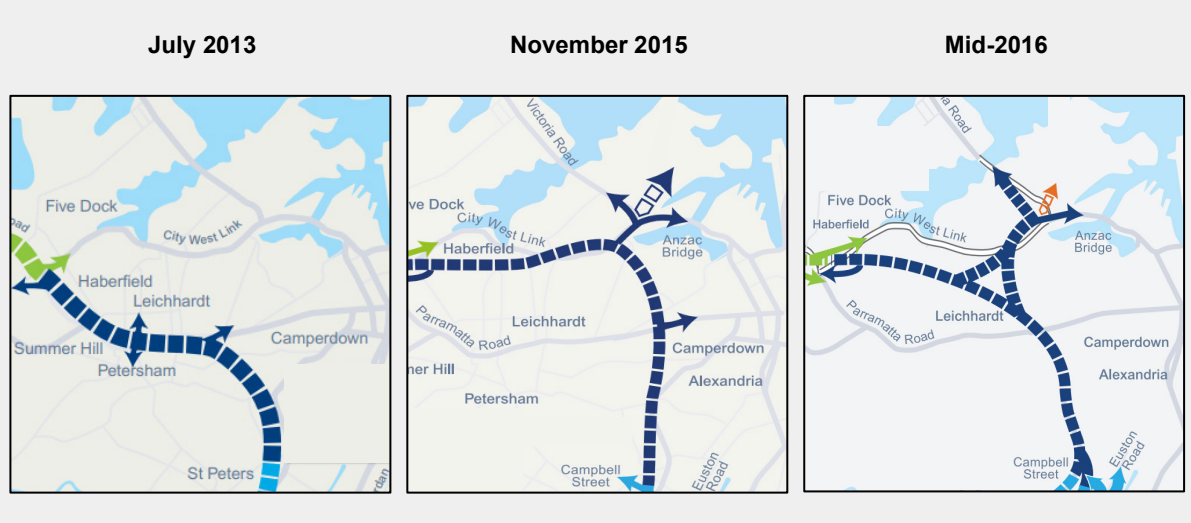
- Include all motorway component costs of Sydney Gateway as a WestConnex project cost and reconfirm related benefits. In sensitivity analysis included in the 2015 WestConnex Updated Strategic Business case, a 30 per cent increase in capital and operating costs would result in a Benefit Cost Ratio (BCR) of 1.3 (excluding wider economic impacts). Therefore, the notional increase of $1.76 billion to the cost of WestConnex would not result in a BCR of less than one.
- Remove the $800 million WestConnex contribution to Sydney Gateway and recalculate benefits for WestConnex separate from Sydney Gateway to ensure benefits are allocated to the relevant project. We were unable to estimate the outcome of this separation. We also note that such a separation would continue to understate the full cost of WestConnex achieving its intended objectives.

Accurate benefits measurement is a key aspect of infrastructure delivery. Government agencies must be able to demonstrate that it assesses the impact of scope changes on costs and benefits. Otherwise, this exposes the risk that government's infrastructure investments will not achieve their intended outcomes.

3.3 WestConnex Stage 3

The design and scope of WestConnex Stage 3 has significantly evolved since the July 2013 WestConnex business case. The design in the November 2015 business case included a northern extension (the Rozelle Interchange) to provide direct connection to the Anzac Bridge and Victoria Road and enables a connection to the proposed Western Harbour Tunnel and Beaches Link (See Exhibit 9).

Exhibit 9: Schematic of design changes to WestConnex Stage 3



Source: Transport for NSW.

In 2016, TfNSW revised the design of the M4-M5 Link and Rozelle to address traffic and integration issues

As part of preparing the 2015 Updated Strategic Business Case in 2015, TfNSW prepared a Project Definition and Delivery Report (PDDR) for the M4-M5 Link. This report describes the scope of the project, including a high-level concept design. TfNSW identified limitations with the proposed design of the M4-M5 in the PDDR, which it would need to address as the project moved to a detailed design stage. These limitations included:

- poor integration with the Bays Precinct masterplan
- traffic capacity constraints on Victoria Road and Anzac Bridge
- construction complexity.

To address these limitations, TfNSW changed the design of WestConnex Stage 3, following a comprehensive review conducted in mid-2016. The review used traffic modelling analysis to assess design options for the stage.

As a result of the review, TfNSW made the following changes to the design (See Exhibit 9):

- the deletion of the Camperdown intersection to improve traffic conditions on Parramatta Road and reduce significant network integration costs around that intersection
- a fully underground and larger Rozelle Interchange with 10-hectare dedicated parklands to reduce the costs of property acquisitions and improve public amenity
- a toll-free tunnel link from Iron Cove Bridge to Anzac Bridge to improve traffic conditions on Victoria Road
- increase the lanes in the dual tunnels from three to four lanes each way to increase capacity to meet predicted traffic conditions after 2036.

TfNSW documented the rationale for the design changes, including how the changes addressed the limitations of the previous design while providing increased community benefit through the creation of open space. TfNSW also undertook cost comparison studies which estimated that these changes would have no impact on the estimated project cost. TfNSW's cost estimate report was informed by a detailed design and procurement strategy.

On this basis, the realignment of the M4-M5 link (Stage 3) major scope changes will help achieve the objectives of WestConnex. Also, the process used to approve these design changes complied with the change management process described in the 2015 Updated Strategic Business Case.

In November 2018, the government removed the $198 million Urban Amenity Improvement Program for Parramatta Road from WestConnex

A specific objective of the 2015 WestConnex business case was the creation of opportunities for urban renewal along and around Parramatta Road. $198 million was allocated in the $16.812 billion WestConnex budget for the Parramatta Road Urban Amenity Improvement program, designed to implement aspects of the objective.

In November 2018, government removed the Parramatta Road Urban Amenity Improvement Program from the WestConnex program of works and reallocated the $198 million (inside the $16.812 billion WestConnex budget) for urban renewal works around the Rozelle Interchange. As part of this decision, government approved new funding of $198 million to the Greater Sydney Commission for Parramatta Road urban renewal works. The process used to approve this scope change complied with the change management process described in the 2015 Updated Strategic Business Case.

Government's decision to remove the Parramatta Road Urban Amenity Improvement Program from WestConnex will not have a detrimental impact on the objectives of WestConnex as the Greater Sydney Commission will deliver these works. Also, the Rozelle Interchange urban renewal works will provide additional benefits attributable to WestConnex. However, it does have an impact on WestConnex meeting its objectives within its stated budget. As both urban renewal projects are directly related to WestConnex achieving its objectives, these costs should have been included in the budget for WestConnex.

4. Independent assurance process

Following our 2014 performance audit report 'WestConnex: Assurance to the government', the NSW Government established the Infrastructure Investor Assurance Framework (IIAF). INSW is responsible for the development, implementation and administration of the IIAF. The assurance framework involves gateway reviews, health checks, deep dive reviews, and project monitoring and reporting at various stages in the lifecycle of a project. The main aims of the IIAF are to help ensure major infrastructure projects are delivered on time and on budget, and to ensure that reports are regularly monitored by the Cabinet of the NSW Government. The IIAF gateway review process is compulsory for all significant investments and expenditure under the NSW Treasury Gateway Policy.

In accordance with the IIAF, INSW is responsible for the following:

- providing a dedicated Assurance Team including Gateway Review Managers to coordinate Reviews
- determining appropriate expert reviewers, and manages scheduling, commissioning and administration of Assurance Review reports. Infrastructure NSW is independent of the Expert Review Team
- monitoring Tier 1 – High Profile/High Risk projects, Tier 2 and Tier 3 (if required) project performance through independent Assurance Reviews
- providing independent analysis and advice on key risks and any corrective actions recommended for Tier 1 – High Profile/High Risk, Tier 2 and Tier 3 projects
- escalating projects to Infrastructure Investor Assurance Committee (IIAC) and Cabinet where projects present ‘red flag issues’ and where corrective action is needed
- working with delivery agencies to register all capital projects with an estimated cost greater than $10.0 million and ensures they are risk profiled and assigned a risk-based project tier with an endorsed IIAF Project Registration report
- preparing forward looking annual Cluster Assurance Plans
- maintaining and continuously improves the IIAF process
- reporting to the IIAC, Cabinet and Infrastructure NSW Board
- regularly report to NSW Treasury on the performance of the IIAF.

In relation to WestConnex, TfNSW is the sponsor agency responsible for meeting relevant IIAF requirements, including:

- registering and risk profiling projects
- IIAF gateway, health check, and deep dive assurance reviews
- regular reporting.

Under the IIAF, it is mandatory for all capital projects valued over $10.0 million to be registered with INSW. Capital projects can be registered either as a program (comprising of a group of related projects or activities) or as a project (which may or may not be part of a program).

According to the IIAF, programs tend to have a lifespan of several years and aim to deliver outcomes and benefits related to an organisation's strategic objectives. Projects tend to have a shorter lifespan, and deal with outputs. Projects can, however, be grouped under a single program if they are similar in nature or if they are aimed at collectively achieving a strategic objective. Complex projects can be delivered in multiple stages, under different contracts, and across different time periods.

The last assurance review of the entire WestConnex program of works as a whole was in 2015

INSW conducted the first IIAF gateway review of WestConnex in August 2015. TfNSW developed a draft WestConnex Updated Strategic Business Case to consolidate the latest analysis on WestConnex, and to confirm that the project remained fit for purpose, economically viable, and financially deliverable. The review followed a recommendation in our 2014 performance audit report that business cases be thoroughly revisited.

During September 2015, INSW conducted additional informal reviews to identify strategic risks associated with public release of the WestConnex business case. Subsequently, INSW gave the Premier of NSW its views on the draft business case, including the following points:

- The $398 million budget for Sydney Gateway was insufficient to meet the benefits claimed in the business case for a 'functional' connection to Sydney Airport and Port Botany. INSW studies indicate a future-proof solution would require a minimum spend of $755 million.
- Enabling works for WestConnex estimated at $1.534 billion were excluded from the cost of WestConnex. Significant work remained for RMS to identify mitigation measures to address planning approvals and network performance issues.
- Enabling works (a Southern Connector), an access ramp and surface road improvements within St Peters were excluded from the draft 2015 business case despite their inclusion in the WestConnex scope in the 2014–15 State Budget.
- The overall cost of works not funded within the WestConnex budget ranged from $2.011 billion to $2.196 billion. This included the enabling works, access ramp and surface road improvements and the shortfall for Sydney Gateway.

All WestConnex related projects, including Sydney Gateway have undergone independent assurance reviews under the IIAF

Since INSW submitted the first WestConnex progress update report to Cabinet in June 2015, INSW has been reporting monthly on the different stages of the WestConnex Program, including Sydney Gateway, as the projects were registered with INSW as High-Profile, High-Risk projects. Separate reporting enabled INSW to report and review each stage with more detailed scrutiny, compared to the reporting and reviewing at a program level.

WestConnex Stage 2 (New M5) underwent both mandatory and non-mandatory reviews at key points in the project lifecycle. Three mandatory gateway reviews – at Gate 2 (Final business case), Gate 3 (Readiness for market), and Gate 4 (Tender evaluation) – were conducted by TfNSW before the introduction of IIAF. Four non-mandatory health check reviews and one non-mandatory deep dive review were conducted after the introduction of the IIAF managed by INSW.

Similarly, WestConnex Stage 3 projects – M4-M5 link, M4-M5 Tunnels, and Rozelle Interchange – also underwent mandatory and non-mandatory reviews at key points in their lifecycle under IIAF.

The M4-M5 Link had two mandatory gateway reviews and one non-mandatory health check review under IIAF. These reviews were conducted before Stage 3 was split into two stages, due to major design changes to the Rozelle Interchange and the M4-M5 tunnels.

The M4-M5 tunnels had two mandatory gateway reviews (at Gates 3 and 4), one non-mandatory health check review, and one non-mandatory deep dive review under IIAF.

Rozelle Interchange also underwent three mandatory gateway reviews at Gate 3 (part 1), Gate 3 (part 2), and Gate 4, two non-mandatory health check reviews, and one non-mandatory deep dive review under IIAF.

Since mid-2017, the Sydney Gateway project has undergone required independent assurance reviews, as well as a number of optional assurance reviews

In November 2016, INSW conducted a mandatory Gate 1 gateway review on a strategic business case for the Sydney Gateway Project. TfNSW did not proceed with this business case. Following the separation of Sydney Gateway from WestConnex in mid-2017, TfNSW developed a new business case for Sydney Gateway. It has undergone the required Gate 1, Gate 2, and Gate 3 gateway reviews, as well as two non-mandatory health check reviews, and three non-mandatory deep dive reviews under IIAF.

Network integration works have undergone all IIAF required assurance reviews

TfNSW completed a strategic business case for the Network Integration Program in August 2020, and INSW completed a gateway review in November 2020. This is despite network integration projects starting as early as 2015, with $645 million having been spent by June 2020. The strategic business case included a prioritisation process for completing remaining works in the program. Prior to November 2020, TfNSW registered individual network integration projects with INSW, and these projects have undergone gateway reviews where required.

The Network Integration Program strategic business case does not include Rozelle interchange network integration works ($353 million) and additional network integration works to settle a contractor claim adjacent to St Peters Interchange ($190 million). These were excluded from the business case on the basis they had already been approved by government, and as such were not subject to the prioritisation elements of the business case. TfNSW has not developed separate business cases for these works, although the scope of the St Peters Interchange works was developed through a negotiated process.

TfNSW did not prepare business cases for some network integration works which have commenced, including the $323 million Campbell Road/Euston Road works

Prior to its development of the August 2020 strategic business case, TfNSW did not prepare business cases for many network integration works that have commenced, and in some instances were completed, before 2019. Significantly, TfNSW did not prepare a business case for the Campbell Road/Euston Road works, which cost $323 million and have been completed.

In 2016, TfNSW's Business Case Policy requires the creation of business cases for capital projects costing over $1.0 million. At the time of writing this report, TfNSW's draft policy requires full business cases for capital projects costing $10.0 million or more.

There is no requirement for ongoing 'whole-of-program' assurance of the WestConnex program of works, including related projects

INSW conducted its first gateway review of WestConnex (as a program, which consisted of composite projects) in August 2015. Following that review, TfNSW registered each of the components of WestConnex with INSW as individual projects, rather than keeping WestConnex registered as a program or complex project. The IIAF allows this to occur.

Separate registration enabled INSW to report and review each stage with more scrutiny compared to whole-of-program level review.

Such an approach has merit, considering the individual stages (and components of these stages) are multi-million dollar works in their own right. Each project has its own timing for gateway reviews at stages such as 'Readiness for Market' and 'Tender Evaluation'.

Once a program such as WestConnex is broken down into its composite parts, there is no requirement for the sponsor agency (TfNSW) or INSW to conduct independent assurance on the program of works as a whole until the whole program is completed as part of the Benefits Realisation (Gate 6) gateway review. The absence of strategic, holistic reviews of projects of the scale and complexity such as WestConnex during their delivery allows for total costs and benefits to become opaque and avoid scrutiny. Projects of this scale require greater ongoing transparency on total costs and benefits in order to ensure confidence they will meet intended objectives within budget.

INSW has advised us that it has prepared a proposal to expand its assurance function to include whole-of-program review of inter-related infrastructure projects.

Section two

Appendices

Appendix one – Responses from agencies

Response from Infrastructure NSW

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Ms Margaret Crawford
Auditor-General for NSW South Wales
CPO Box 12
Sydney NSW 2001

Via email: mail@audit.nsw.gov.au

Dear Margaret,

Performance Audit – WestConnex: Changes since 2014

Thank you for the opportunity to provide a formal response on this audit for inclusion in the final report to be tabled in Parliament.

I believe the recommendations outlined within the report can strengthen oversight and reporting on programs that consist of large complex projects. Infrastructure NSW has commenced work to enable program level assurance for programs that consist of large complex projects. Infrastructure NSW will consult with agencies to determine if and how total costs and benefits can be reported at the program level.

I would like to thank you for the professionalism of your audit team throughout this process and for the opportunity to contribute during the course of the audit.

Yours sincerely,

Simon Draper
Chief Executive Officer

8 June 2021

Response from Transport for NSW

Your ref: D2108397/PA6648
Our Ref: A9542225

Ms Margaret Crawford
Auditor-General
Audit Office of NSW
GPO Box 12
SYDNEY NSW 2000
By email

8 June 2021

Dear Ms Crawford

Performance Audit – WestConnex: Changes since 2014

Thank you for the opportunity to respond to the Performance Audit Report (**the Report**) on the WestConnex: changes since 2014.

Transport for NSW has considered the Report and its findings and is committed to ensuring it continues to assess the impact of scope changes on project objectives, costs and benefits for complex infrastructure projects.

Transport for NSW accepts the Auditor-General's recommendations and responds as follows:

- 1 a) Transport for NSW will continue to assess the impact of scope changes on project objectives, costs and benefits for complex infrastructure projects throughout the project lifecycle. Transport for NSW has a number of established governance processes and forums to assess and approve scope changes in line with Transport for NSW Delegation of Authority. Major infrastructure projects are subject to a range of Infrastructure NSW Gateway review processes which determine whether a project can progress to the next stage in the delivery, development or commissioning. Infrastructure for NSW (INSW) are also introducing a Capital Portfolio Health Check to ensure appropriate processes are being followed. Transport for NSW will continue to work with responsible NSW government assurance and funding authorities to ensure that projects comply with infrastructure assurance requirements.

- 1 b) Transport for NSW through existing governance arrangements will consult with NSW Treasury and the Department of Planning, Industry and Environment to ensure that Treasury requirements in relation to costs and benefits to meet consent conditions are clearly understood so that they can be captured in final costs and benefits for complex large infrastructure projects.

- 1 c) Fit for purpose structures were established for the development and delivery of WestConnex so the best mix of expertise, knowledge and market circumstances were culminated to address the complex challenges. This encompassed a mix of entities from public structures to private companies formed under the Corporations Act 2001 (Cth). Those entities were tailored to meet the project requirements during that stage of the project lifecycle and complied with all statutory reporting standards as well as record management practices. Transport for NSW acknowledges there is room for improving its record keeping, and since its amalgamation with Roads and Maritime Services, has taken measures to improve access to records and will continue to pursue best practice measures for records management. Transport for NSW is centralising its records functions, to ensure consistency across the department. An initiative to manage records where they are created ("Records Management in Place") will soon be launched, using standard terms for classification, and hence, easier identification. It will commence with protecting documents in Microsoft SharePoint and Teams. A parallel initiative to embed enterprise search capability will assist with finding

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records and documents across multiple repositories. In addition, Transport will develop and communicate standard file structures and naming conventions for managing of records for major projects. Transport will continue to comply with the obligations under the *State Records Act 1988,* including by storing records in Transport's records management systems which are State Records Act compliant.

For recommendations 2 and 3, Transport for NSW will be guided by any directions from the NSW Government and INSW.

Transport for NSW also notes that while the assurance requirements have changed during the life of the program, at each stage the WestConnex project has fully complied with all the assurance requirements of the external INSW process and its own internal assurance mechanisms. Transport for NSW will continue to comply with all assurance obligations on WestConnex and other infrastructure projects.

The WestConnex motorway project is critical city shaping infrastructure designed to keep Sydney moving by easing congestion, creating jobs and connecting communities. With links to the Sydney Gateway project, WestConnex improves the connectivity and competitiveness of Sydney's commerce from industrial and commercial locations around Greater Sydney, to our airports and sea ports precincts, improving the efficiency of freight and supporting long-term economic growth for NSW.

WestConnex has progressed in three stages, with the New M4 and M8 delivered under the program. Motorists, freight and communities are already benefiting from significant travel time savings since the opening of the first two stages of WestConnex. These include (average):

- 35 minutes westbound from the CBD to Parramatta in afternoon peak (M4)
- 15 minutes eastbound from Parramatta to the CBD in morning peak (M4)
- 30 minutes Liverpool-CBD in morning and evening peaks (M8/M5 East)

Traffic along Parramatta Road has already been reduced by almost a third, along with a significant reduction in the number of heavy vehicles and trucks along Parramatta Road. By removing traffic from surface roads and local streets, WestConnex creates place making opportunities including the revitalisation of key shopping and recreation destinations such as along Parramatta Road, and around Sydney Park through the Parramatta Urban Renewal and Network Integration Programs, and the provision of more than 18 hectares of open space in the inner west, including the future Rozelle Parklands.

WestConnex also provides an integral platform to achieve the NSW Government's plan for growing Sydney in a way that is affordable for taxpayers. The Government's seed funding of WestConnex has de-risked the project and is in the public interest with a BCR of 1.88 as well as being on budget for delivery. Through the sale of 51 per cent of Sydney Motorway Corporation in August 2018, the NSW Government received $9.26 billion, to fund the final stage of WestConnex. The sale of Government's remaining 49% of WestConnex forms part of the asset recycling program which allows Government to reinvest the proceeds to upgrade schools, hospitals, public transport and roads right across NSW.

If you have any further questions, Camilla Drover, Deputy Secretary Infrastructure and Place, would be pleased to take your call on [redacted]. I hope this has been of assistance.

Yours sincerely

Rob Sharp
Secretary

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Appendix two – Network integration works

Project	Description	Status at 31 Jan 2020	Estimated cost	Planning condition	Integrate WestConnex	Compliance with planning condition	Alignment of movement and place
M4 East - M4 Smart Motorway Civil Works	Works along M4 East motorway.	Completed	$20.1m	Yes	Slightly high	Neutral	Neutral
M4 East - Concord Road/ Patterson Street/ Sydney Street	Major road works adjacent to motorway intersection.	Future	$108.6m	Yes E36 b) vi)	Slightly high	Neutral	Neutral
M4 East - Dobroyd Parade/ Timbrell Drive - Pedestrian bridge and Intersection upgrade	Works on City West Link leading up to Haberfield entry into M4 East.	Future	$12m	Yes E36 b) i) or E36 c)	High	Slightly high	Slightly high
M4 East - City West Link/James Street/Norton Street Intersection modifications	Roadworks on City West Link in Leichhardt.	Future	$35m	Yes E36	Slightly high	Slightly high	Neutral
M4 East - Concord Road Southbound ramp	Ramp connecting Concord Road traffic to M4 East.	Completed	$72.4m	Yes E36 b) vii)	High	Neutral	Slightly high
M4 East - Parramatta Road/ Concord Road/ Leicester Sq Intersection upgrade	Connection to M4 East from Parramatta Road at Strathfield.	Future	$134m	Yes E36 b) v)	Not provided	Not provided	Not provided

Project	Description	Status at 31 Jan 2020	Estimated cost	Planning condition	Integrate WestConnex	Compliance with planning condition	Alignment of movement and place
M4 East - Parramatta Road/ Dalhousie Street Pedestrian Bridge and Intersection upgrade	Works adjacent to M4E entry from Parramatta Road.	Future	$15m	Yes E36 b) i) or E36 c)	High	Slightly high	Slightly high
M4 East - Parramatta Road/ Liverpool Road/Hume Highway Intersection upgrade	Increased length of rh turn lanes from Parramatta Road into Liverpool Road.	Future	$1m	Yes	Slightly high	High	Neutral
M4 East - Parramatta Road/ Wattle Street/ Frederick Street Pre-opening of M4/M5 works	Enhanced access from Parramatta Road to Wattle Street leading into M4 east portals.	Future	$35m	Yes E36	Slightly high	High	Neutral
M4 East - Parramatta Road Widening - Sloane Street to Flood Street	Minor Reconfiguration of Parramatta Road between Haberfield and Leichardt to ease congestion.	Completed	$1m	Yes E36 b) i) or E36 c)	Slightly high	High	Neutral
M4 East - Preopening works - Toll diversion Route	Install CCTV, TCS and vehicle loops adjacent to M5.	Future	$1.2m	Yes E40 and E41	Slightly high	High	Neutral
M4 East - City West Link Widening	Additional eastbound lane between Waratah Street Haberfield (M4 East entry) and James Street Leichhardt to reduce congestion and queuing.	Completed	$10.6m	Yes E36 b) i) or E36 c)	High	High	Neutral

Project	Description	Status at 31 Jan 2020	Estimated cost	Planning condition	Integrate WestConnex	Compliance with planning condition	Alignment of movement and place
M4 Widening Hill Road Motorway Stub	300m long off ramp stub to mitigate against future potential of extended traffic disruption and potential costs.	Completed	$3.7m (Total cost $6.7m with $3m contribution out of Congestion and Safety Program	Yes	Neutral	Slightly high	Neutral
M4/M5 Link Gardeners Road/ Kent Street Intersection upgrade (3B)	Restriction on heavy vehicles to improve place function.	Future	$5m	Yes E36 c)	Slightly high	Slightly high	High
M4/M5 Link Parramatta Road/ Wattle Street/ Frederick Street (Post opening of M4/M5)	Roadworks at Intersection to address forecast traffic growth leading into and out of M4E Wattle Street portals as well as along Parramatta Road.	Future	$100m	Yes	Slightly high	Neutral	Slightly high
M4/M5 link - Princes Hwy/ Canal Road Intersection upgrade	Works adjacent to St Peters Interchange.	Future	$1m	Yes E40 b) v)	Not provided	Not provided	Not provided
M4/M5 Link Rozelle Park	Local road modifications, cycleways and pedestrian movement improvements.	Future	$15m	No	Not provided	Not provided	Not provided
M4/M5 Link and Rozelle Interchange - Sydney harbour bridge southern approaches (ANZAC Bridge tidal flow and Western Distributor Improvement Works	Increasing capacity of Anzac Bridge and Western distributor to address land use changes in Blackwattle Bay area.	Future	$207m	Yes E63 c)	Slightly high	Slightly low	Slightly high

Project	Description	Status at 31 Jan 2020	Estimated cost	Planning condition	Integrate WestConnex	Compliance with planning condition	Alignment of movement and place
M4/M5 Link and Rozelle Interchange - Victoria Road Drummoyne - Rozelle Interchange	There is no description of the actual intended works. The project scope seems to indicate these will be temporary local roadworks to facilitate construction of the Rozelle Interchange.	Future	$161.9m	Yes	Not provided	Not provided	Not provided
M4/M5 Link and Rozelle Interchange Princes Hwy/ Campbell Rd		Future	$30m	Not provided	Not provided	Not provided	Not provided
M4/M5 Link and Rozelle Interchange Gardiners Rd/ Kent St		Future	$5m	Not provided	Not provided	Not provided	Not provided
M4 Widening - Centenary Drive /Arthur Street Intersection upgrade	Improve traffic flow in Centenary Drive in part generated by M4 widening.	Future	Not provided	Yes B15	High	High	Slightly high
M4 widening - Church Street Exit Ramp	Widening existing exit ramp of M4 to increase lane storage.	Completed	$10m	Yes B15	Slightly high	High	Neutral
M4 Widening - Hill Road Eastbound on Ramp	Provide east bound access to M4 from Sydney Olympic Park precinct.	Completed	$20m	Yes B17	Neutral	Slightly high	Neutral

Project	Description	Status at 31 Jan 2020	Estimated cost	Planning condition	Integrate WestConnex	Compliance with planning condition	Alignment of movement and place
M4 Widening - Parramatta Road/ Church Street/ Woodville Road M4 upgrade (safety and capacity improvement	Ease congestion and improve safety on M4 by increasing off-ramp capacity, improve traffic flow from M4 off ramp towards Church Street, Woodville Road and Parramatta Road.	Future	$45.5m	Yes	Slightly high	Slightly high	Neutral
M4 Widening - Parramatta Road/ James Ruse Drive/ Berry Street Intersection upgrade	Improve traffic flow on Parramatta Road.	Future	$20m	Yes B15	Slightly high	Neutral	Neutral
M4 Widening - Pre-opening mitigation works	Improve traffic flow on Parramatta Road between Church Street Parramatta and Concord Road Strathfield which complements M4 widening.	In delivery	$1.2m	Yes	Slightly high	High	Neutral
M4 Widening - Silverwater Road/M4 ramps	Widening and lengthening existing ramps to improve capacity and support smart motorway implementation.	Future	$20m	Yes B18	Not provided	Not provided	Not provided
M4 Widening M4 on ramp at Woodville Rd/ Church St Intersection		Future	$4.5m	Not provided	Not provided	Not provided	Not provided

Project	Description	Status at 31 Jan 2020	Estimated cost	Planning condition	Integrate WestConnex	Compliance with planning condition	Alignment of movement and place
M4 Widening Church St/ Woodville Rd/ Parramatta Rd reservation		Future	$45m	Not provided	Not provided	Not provided	Not provided
New M5 (M8) - Alexandria to Moore Park - Stage 1	To address increased traffic flows from St Peters Interchange to the east (and vice versa) for M8 generated traffic until M4/M5 link opens.	In Delivery	$20m	Yes E40 b) iii)	Slightly high	Neutral	Neutral
New M5 (M8) - Campbell Road/ Euston Road Works	Work includes tie in works to connect with the on and off ramps for the main tunnels and local road network.	In Delivery	$323m	Yes E40 b) xi)	Slightly high	High	Neutral
New M5 (M8) - Campbell Road/ Euston Road post opening analysis	Mandatory 12 month post opening traffic assessment and analysis to identify motorway opening impacts on network.	Future	$2m	Yes E40	High	High	High
New M5 (M8) - Gardeners Road/ Bourke Street Works post opening analysis	Mandatory 12 month post opening traffic assessment and analysis to identify motorway opening impacts on network.	Future	$1m	Yes E40	Not provided	Not provided	Not provided

Project	Description	Status at 31 Jan 2020	Estimated cost	Planning condition	Integrate WestConnex	Compliance with planning condition	Alignment of movement and place
New M5 (M8) - Gardeners Road/ O'Riordan Street Works	Road widening and turning movements. Assessed post M8, M4/M4 Link and Sydney Gateway opening.	Future	$61.4m	Yes E40 b) vii)	Slightly high	Neutral	Neutral
New M5 (M8) - King Street Gateway	Reduction in lanes on Princess highway and Sydney park Road to improve local amenity.	Future	$20m	Yes B44, E40 b) ii)	Slightly high	Slightly high	High
New M5 (M8) - M5 Smart Motorway Tunnel loops	Improve functionality of motorway at access/exit ramps and minimise future disruption to Stage 2 works.	Completed	$4.5m	Yes	Slightly high	High	Not provided
New M5 (M8) - Mascot at grade works	To address existing congestion, and to provide existing network with capacity required to cope with additional traffic drawn to the precinct through the opening of St Peters Interchange.	In delivery	$20.5m	Yes	High	Slightly high	Slightly high
New M5 (M8) - Pinch points King Georges Road and Surrounding Streets	Mandatory 12 month post opening analysis of King Georges Road Interchange and surrounding roads (Stage 2).	Future	$2m	Yes E40 b) i)	Slightly high	High	Slightly high

Project	Description	Status at 31 Jan 2020	Estimated cost	Planning condition	Integrate WestConnex	Compliance with planning condition	Alignment of movement and place
New M5 (M8) - Princes Hwy/ Campbell Street	Provision of pedestrian and cycle infrastructure to address Euston Road widened from 1 lane each direction to 3 lanes each direction between Campbell Road and Sydney Park Road (to carry traffic from St Peters Interchange).	Future	$1m	Yes E40 b) iv)	High	High	Slightly high
New M5 (M8) - Princes Hwy/Railway Road	Increased green signal for RH turn from Princes Hwy into Railway Road due to reduced traffic on Princess Hwy resulting from WestConnex Stage 2.	Future	$1m	Yes E40 b) vi)	Slightly high	High	Neutral
New M5 (M8) - Unwins Bridge Road/Campbell Street	Intersection improvements (incl new left turn lane from Campbell Street to Unwins Bridge Road, new Right turn from Campbell Street to Mary Street, and pedestrian and cycle bridge across Campbell Road to Sydney Park).	Future	$4.1m	Yes E40 b) x)	High	High	Slightly high

Project	Description	Status at 31 Jan 2020	Estimated cost	Planning condition	Integrate WestConnex	Compliance with planning condition	Alignment of movement and place
New M5 (M8) Campbell Rd/ Bourke Rd	Intersection upgrades to improve vehicle connectivity to St Peters interchange and cyclist and pedestrian connectivity in the area.	In Delivery	$12.2m	Yes B43 and E40	Slightly high	Slightly high	Slightly high
New M5 (M8) Campbell Road/ Euston Road Property	Residual land acquired and allocated for future use such as open space returned to councils under care, control and management arrangements.	In Delivery	$161.8m	Yes E40, B68 and B69	High	Neutral	High
Rozelle Interchange NI Works	Government approved works for entry/exit portals for the Iron Cove Link tunnel between Iron Cove Bridge and Anzac Bridge.	Committed	$353m	Not provided	Not provided	Not provided	Not provided
Stage 2 Global Settlement NI works	Government approved works to address commercial settlement around Stage 2 NI works by the D&C contractor.	Committed	$190m	Not provided	Not provided	Not provided	Not provided
Total			**$2,299m**				

Source: Transport for NSW.

Appendix three – About the audit

Audit objective

This audit assessed whether responsible agencies effectively assessed and justified major scope changes to the WestConnex project since December 2014.

Audit criteria

We addressed the audit objective with the following audit criteria:

1. Agencies effectively assessed the impact of major scope changes on rationale/need/objectives of the project as a whole.
   a) New or amended business cases accurately describe business needs and rationale for the scope changes, and were supported by robust information and evidence.
   b) Business cases for related projects were accurately amended to reflect the impact of changes in scope.
2. Agencies effectively assessed the impact of major scope changes on costs of the project as a whole.
   a) New or amended business cases accurately described project costs (including related projects).
   b) Business cases for related projects were accurately amended to reflect the impact of new or amended business cases.
3. Agencies effectively considered the impact of major scope changes on benefits of the project as a whole.
   a) New or amended business cases accurately described project benefits.
   b) Business cases for related projects were accurately amended to reflect the impact of changes in scope.
4. Major scope changes completed all required independent assurance reviews.

Audit scope and focus

In assessing the criteria, we checked the following aspects:

Business cases for all stages, including major scope changes of WestConnex, and for related projects which are necessary for WestConnex to fully realise its stated benefits, were effectively developed, independently reviewed, revised and approved.

Major scope changes for WestConnex include:

- Stage 2 Works:
  - replacement of Airport Link with Sydney Gateway (included in the November 2015 business case), and then subsequent removal of Sydney Gateway from WestConnex project
  - reconfiguration of M5 East, including link to the F6 Freeway extension (included in the November 2015 business case).
- Stage 3 Works:
  - realignment of M4 to M5 link, including major intersections at St Peters and Rozelle and connection to the Western Harbour tunnel project (included in the November 2015 business case) and the subsequent deletion of the Camperdown intersection
  - the removal of the Parramatta Road Urban Amenity Improvement Program from the scope of WestConnex Stage 3.

Related projects include:

- the now separate Sydney Gateway project
- the WestConnex Network Integration Program.

Audit exclusions

The audit did not seek to question the merits of government policy objectives. However, we may comment on these issues where they affect our findings or to provide context.

If warranted, we could change the audit objective, scope or criteria during the course of the audit. If we feel this is necessary, we would have discussed any planned changes and the reasons for them with the agency before finalising.

Audit approach

Our procedures included:

a) interviewing key personnel from Transport for NSW (TfNSW) associated with scope changes on the WestConnex project, the Sydney Gateway project, and projects related to WestConnex such as the WestConnex Network Integration Program

b) interviewing key Infrastructure NSW (INSW) personnel associated with managing or conducting assurance reviews conducted under the governments Infrastructure Investor Assurance Framework on the WestConnex project, Sydney Gateway project, and projects related to WestConnex such as the WestConnex Network Integration Program

c) the audit involved consultation with other stakeholders including Department of Premier and Cabinet and NSW Treasury

d) examining documentation relating to decisions made by TfNSW in relation to scope changes on the WestConnex project, the Sydney Gateway project, and projects related to WestConnex such as the WestConnex Network Integration Program including business cases and their supporting documents

e) examining documentation relating to assurance reviews carried out by INSW in relation to scope changes on the WestConnex project, the Sydney Gateway project, and projects related to WestConnex such as the WestConnex Network Integration Program

f) examining submissions to Cabinet relating to scope changes on the WestConnex project, the Sydney Gateway project, and projects related to WestConnex such as the WestConnex Network Integration Program

g) analysing data such as traffic studies, and cost estimates prepared to support business cases and any resultant submissions to Cabinet as well as financial/economic studies.

We also examined documentation from other stakeholders obtained throughout the audit such as research and studies, statistical data and analysis.

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 Standard ASAE 3500 Performance Engagements and other professional standards. The standards require 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 requirements specified in the *Public Finance and Audit Act 1983*.

Acknowledgements

We gratefully acknowledge the co-operation and assistance provided by staff from Transport for NSW and Infrastructure NSW.

Audit cost

The total cost of the audit is $800,000.

Appendix four – Performance auditing

What are performance audits

Performance audits determine whether state or local government entities carry out their activities effectively, and do 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 an audited entity, or more than one entity. They can also consider particular issues which affect the whole public sector and/or the whole local government sector. They cannot question the merits of government policy objectives.

The Auditor-General's mandate to undertake performance audits is set out in section 38B of the *Public Finance and Audit Act 1983* for state government entities, and in section 421B of the *Local Government Act 1993* for local government entities.

Why do we conduct performance audits

Performance audits provide independent assurance to the NSW Parliament and the public.

Through their recommendations, performance audits seek to improve the value for money the community receives from government services.

Performance audits are selected at the discretion of the Auditor-General who seeks input from parliamentarians, state and local government entities, other interested stakeholders and Audit Office research.

How are performance audits selected

When selecting and scoping topics, we aim to choose topics that reflect the interests of Parliament in holding the government to account. Performance audits are selected at the discretion of the Auditor-General based on our own research, suggestions from the public, and consultation with parliamentarians, agency heads and key government stakeholders. Our three-year performance audit program is published on the website and is reviewed annually to ensure it continues to address significant issues of interest to Parliament, aligns with government priorities, and reflects contemporary thinking on public sector management. Our program is sufficiently flexible to allow us to respond readily to any emerging issues.

What happens during the phases of a performance audit

Performance audits have three key phases: planning, fieldwork and report writing.

During the planning phase, the audit team develops an understanding of the audit topic and responsible entities 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 audited entity, program or activities are assessed. Criteria may be based on relevant legislation, internal policies and procedures, industry standards, best practice, government targets, benchmarks or published guidelines.

At the completion of fieldwork, the audit team meets with management representatives 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 management representatives to check that facts presented in the draft report are accurate and to seek input in developing practical recommendations on areas of improvement.

A final report is then provided to the head of the audited entity who is invited to formally respond to the report. The report presented to the NSW Parliament includes any response from the head of the audited entity. The relevant minister and the Treasurer are also provided with a copy of the final report. In performance audits that involve multiple entities, there may be responses from more than one audited entity or from a nominated coordinating entity.

Who checks to see if recommendations have been implemented

After the report is presented to the NSW Parliament, it is usual for the entity's audit committee to monitor progress with the implementation of recommendations.

In addition, it is the practice of Parliament's Public Accounts Committee 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 received by the NSW Parliament. These reports are available on the NSW Parliament website.

Who audits the auditors

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

The Public Accounts Committee appoints an independent reviewer to report on compliance with auditing practices and standards every four years. The reviewer's report is presented to the NSW Parliament and available on its website.

Periodic peer reviews by other Audit Offices test our activities against relevant standards and better practice.

Each audit is subject to internal review prior to its release.

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 02 9275 7100.

Professional people with purpose

OUR VISION

Our insights inform and challenge government to improve outcomes for citizens.

OUR PURPOSE

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

OUR VALUES

Pride in purpose

Curious and open-minded

Valuing people

Contagious integrity

Courage (even when it's uncomfortable)

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