Audit Office
of South Australia

Auditor-General's Report 5 of 2026

T2D project risk and issue management

Government of South Australia

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17 August 2026

President
Legislative Council
Parliament House
ADELAIDE SA 5000

Speaker
House of Assembly
Parliament House
ADELAIDE SA 5000

Dear President and Speaker

Report of the Auditor-General:
Report 5 of 2026 *T2D project risk and issue management*

Under the *Public Finance and Audit Act 1987,* I present to you this report on whether the Department for Infrastructure and Transport has effective arrangements for managing risks and issues related to delivering the T2D project main works under the Project Alliance Agreement. It covers the period from the start of the Agreement in September 2024 to March 2026.

The performance audit is a reasonable assurance engagement which concludes on the effectiveness of an activity as evaluated against identified criteria. It was conducted in line with the Australian Standard on Assurance Engagements ASAE 3500 *Performance Engagements*.

Acknowledgements

The review team for this report was Salv Bianco, Ken Anderson, Stephen Gladigau and Veronika Kosourikhina.

We appreciate the cooperation and assistance given by staff of the Department for Infrastructure and Transport involved in our review.

Yours sincerely

Andrew Blaskett
Auditor-General

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Audit snapshot

T2D project risk and issue management

Key findings

While the Department for Infrastructure and Transport (DIT) has established structured risk and issue management arrangements for the River Torrens to Darlington project (T2D project), our audit identified opportunities to strengthen its oversight and provide greater assurance that significant project risks and issues are being effectively managed. We found:

- DIT's oversight and assurance arrangements for significant Alliance-managed risks should be strengthened, to support consistent risk identification, assessment and escalation
- governance reporting should be strengthened to support a clearer understanding of significant risk exposures and whether mitigation actions are effective
- Alliance issue management arrangements should support a more consistent and transparent approach to identifying, assessing and resolving project issues
- evidence supporting the effectiveness of controls, treatments and actions should be strengthened to clearly demonstrate they are operating effectively and as intended.

Why this matters

The T2D project is the largest and most complex infrastructure project in South Australia's history. The project main works are being delivered with private sector Alliance partners under an Alliance agreement, however DIT retains ultimate accountability for achieving project objectives and managing the State's risk exposures. The private sector Alliance partners share cost overruns on the main works with the State up to a capped amount. The State bears all costs above that amount.

A project of this scale and complexity demands the highest level of risk and issue management to support informed decision making and assurance that existing and emerging threats to cost, schedule and quality outcomes are effectively managed.

Key facts

2031
expected completion

The final **10.5-km section** of the **North-South Corridor**

5,500 jobs supported during peak construction

$15.4 billion
project budget

$154 million cost impact if the **total project budget overruns by 1%**
Main works cost overruns are subject to pain-share arrangements in the Alliance agreement

1 Executive summary

1.1 Introduction

The River Torrens to Darlington project (T2D project) will upgrade the final 10.5-kilometre section of the North-South Corridor to a non-stop motorway linking Darlington to the River Torrens. The Minister for Infrastructure and Transport has described it as 'the largest and most complex infrastructure project in South Australia's history'.[1] The current project budget is $15.4 billion, funded 50/50 by the South Australian and Commonwealth Governments. The project is expected to be completed in 2031.

The T2D project main works are being delivered through a Project Alliance Agreement that was executed on 13 September 2024. Under this Alliance arrangement, the Department for Infrastructure and Transport (DIT) works with its private sector Alliance partners to deliver the main works.[a]

While the T2D project main works are delivered through the T2D Alliance (the Alliance), DIT, as the Principal, is ultimately accountable to the SA Government for achieving project objectives and managing the State's risk exposures. The State is responsible for all cost overruns above a threshold set in the Project Alliance Agreement.[b]

A project of this scale and technical complexity demands the highest level of risk and issue management, including clear oversight of risks and issues managed by the Alliance. Risks and issues are expected to evolve and emerge as the project progresses. It is essential that all risks and issues are effectively managed, so they are identified and addressed early. If they are not, there may be project delays, cost increases, scope changes and quality issues.

Our performance audit assessed whether DIT has effective arrangements for managing risks and issues related to delivering the T2D project main works under the Project Alliance Agreement. It covered the period from the start of the Agreement in September 2024 to March 2026. During this period, the Alliance mobilised, progressed the design phase and advanced construction activities.

1.2 Conclusion

DIT has established a structured approach for managing risks and issues for the T2D project main works. While these arrangements provide a sound foundation, we identified some areas of improvement that DIT should address to demonstrate ongoing effective oversight of risk and issue management for a project of this scale, nature and complexity.

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[a] See sections 2.5.2 and 2.5.3 for more information about DIT's two distinct roles as Alliance owner participant and Principal for delivery of the project main works.
[b] See section 2.5.4 for information about these arrangements.

DIT's structured risk and issue management approach includes the following effective practices:

- a project-specific risk management plan aligned with the *Australian Risk Management Standard*
- risk and issue registers supported by processes to identify, analyse and review risks and issues
- clearly defined governance and oversight roles and responsibilities for risks and issues managed by DIT
- a range of controls, treatments and actions to mitigate risks and manage issues
- regular reporting of significant risks and issues managed by DIT to project governance groups
- dashboards and tools to monitor high-impact risk areas that could materially affect the project's schedule, cost and quality.

The following areas require action to support ongoing effective oversight of risk and issue management for the project:

- DIT should clearly define how it oversees risks and issues managed by the Alliance, which present significant risk exposures to the State
- more information is needed in Alliance reporting and reporting to project governance groups to fully support effective oversight of risks and issues
- there is an opportunity to improve the consistency of documented evidence to demonstrate that the controls, treatments and actions for risks and issues are operating effectively.

1.3 What we recommended

To ensure DIT exercises ongoing effective oversight of the management of significant risks and issues for the T2D project main works, we recommend that it:

- clearly defines how it oversees and obtains assurance that the Alliance is managing risks and issues that present significant exposures to the State
- assesses and documents the adequacy of treatments for Alliance-managed risks that present significant exposures to the State, and determine any further action required by DIT as Principal
- provides more regular and detailed reporting to project governance groups about significant Alliance-managed risks and issues to continue to support informed oversight, escalation and decision-making
- works with the Alliance to develop a framework for managing significant issues, including regular reporting on issue mitigation actions, their implementation status and emerging issues

- clearly documents how planned risk treatments and issue actions address underlying drivers and identify targets and measures to support assessments of their effectiveness
- strengthens documentation of control effectiveness assessments, including the work performed and rationale for the assessment conclusion, and regularly reviews controls to confirm they continue to operate as intended.

1.4 Response to our recommendations

See sections 4 to 7 for DIT’s responses to our detailed findings and how it would action our recommendations. DIT’s response to this report is in Appendix 2.

2 Background

2.1 The T2D project is part of the North-South Corridor

The North-South Corridor is one of South Australia's most important transport routes, providing a north–south connection between Gawler and Old Noarlunga. When completed, the North-South Corridor will comprise a 78-kilometre non-stop motorway supporting freight movements, commuter travel and access to key economic gateways across metropolitan Adelaide.

The T2D project is the final 10.5-kilometre section required to complete the North-South Corridor, linking the Darlington upgrade project to the River Torrens.

Figure 2.1: Location of the T2D project on the North-South Corridor

Source: Department for Infrastructure and Transport.

The T2D project main works involve constructing four three-lane tunnels connected by an open motorway, with various connections from the motorway to adjacent surface roads. The northern tunnels will be 2.2 kilometres and the southern tunnels 4.5 kilometres, as shown in figure 2.2.

Figure 2.2: Location of the T2D project tunnels and open motorway

Source: Department for Infrastructure and Transport.

The T2D project main works also include:

- upgrades to various intersections between South Road and east–west arterial roads
- intelligent transport and traffic management systems for the tunnels and the managed motorway
- urban design and landscaping works including new shared paths adjacent to the motorway and travel bridges crossing the motorway.

To maintain access to local businesses, residential properties and community facilities, the project will integrate the existing South Road with tunnel portals and open motorway sections. South Road will be retained as a surface road with two traffic lanes in each direction.[2]

The T2D project also includes $850 million worth of additional network and amenity upgrades along and in the vicinity of the final 10.5-kilometre section of the North-South Corridor.

2.2 Expected benefits of the T2D project

The section of the North-South Corridor between Darlington and the River Torrens is currently one of South Australia's busiest and most constrained road corridors. It operates at or near capacity for most of the day with limited alternative routes that are not congested on parallel roads. High traffic volumes, complex stopping patterns and competing north–south and east–west movements result in slow and unreliable travel times, significant delays, elevated crash rates, and substantial economic costs from congestion.[3]

The expected benefits of the T2D project are summarised in figure 2.3.

Figure 2.3: T2D project expected benefits

Travel time savings and reduced delays
Reduced travel times, travel time variability and vehicle operating costs, and improved road network resilience

Improved travel time to key economic locations
Reduced time taken to access key economic and freight generators

Improved connectivity and reduced east–west intersection delays
Increased connectivity for east–west travel for local communities and reduced public transport delays

Improved safety outcomes
Reduced vehicle crashes with associated reductions in society, insurance and healthcare costs

Greater land-use opportunities
Greater accessibility to suburbs further afield and new growth opportunities, improved land values, better amenity and higher-value industry in precincts surrounding South Road

Source: Department for Infrastructure and Transport, *North-South Corridor, River Torrens to Darlington Project: Value for money statement*, August 2024.

2.3 T2D project scope and funding arrangements

2.3.1 The T2D project scope

The T2D project comprises the following elements shown in figure 2.4.

Figure 2.4: T2D project scope

Enabling works	Activities delivered outside the Alliance to de-risk and expedite commencement of the main works, including: • utility relocations • land acquisition and demolition works • ground investigations • construction of two power substations • securing land and providing access improvements for the precast facility and spoil receival facilities.
Main works delivered by Alliance	Design, construction, testing, commissioning and handover of the motorway and other infrastructure. The main works comprise the southern and northern tunnels and open motor motorway between the tunnels.

Broader network upgrades	Upgrades to roads and intersections to ensure performance of the overall network during the main works and after opening. Announced upgrades include: • Selgar Avenue Link Road • Manton Street and Adam Street junction • Grange Road, Holbrooks Road and East Avenue intersection • Richmond Road and Railway Terrace intersection • James Congdon Drive and Sir Donald Bradman Drive intersection • South Road, Edward Street and Raglan Avenue intersection • Morphett Road tram level crossing.

2.3.2 The Commonwealth and SA Governments are funding the T2D project

The current budget for the T2D project is $15.4 billion.[c] The Commonwealth and South Australian Governments have each committed $7.7 billion to the project. DIT advised that at 30 June 2026, $4.8 billion (31%) of the project budget has been spent.[d]

2.4 Project timeline

A timeline of key events from the initial project funding announcement to the expected project completion date is summarised in figure 2.5.

Figure 2.5: T2D project timeline

April 2019	The Commonwealth and South Australian Governments jointly committed $2.7 billion each for the River Torrens to Darlington section of the North-South Corridor.
November 2020	Estimated project cost of $8.9 billion included in the 2020-21 State Budget.
August 2020	Early works started.
June 2021	Estimated project cost increased to $9.9 billion in the 2021-22 State Budget due to revised project scope.
February 2022	The Commonwealth Government confirmed an additional $2.26 billion in project funding.
March 2022	The SA Government requested that DIT undertake a review of the project.

[c] A detailed breakdown of the project budget is not included in this report as DIT advised us that there are commercial confidentiality obligations with this information.

[d] This figure is unaudited at the time of this report.

December 2022	DIT's review of the project was completed, and a revised new design was released for the project. $850 million of additional network and amenity upgrades along and around the final 10.5-kilometre section of the North-South Corridor were included in the project scope. These upgrades were required to ensure the motorway and broader network function effectively, during construction and on completion. Project budget increased by $5.45 billion to $15.4 billion in the 2022-23 mid-year budget review to reflect the updated design and construction changes. Project completion date revised from 2030 to 2031.
November 2023	The Commonwealth Government confirmed an additional $2.7 billion project funding.
September 2024	Alliance contracts for main works awarded.
May 2025	Main works construction commenced.
July 2026	Excavation of the southern tunnels commenced.
Second half of 2026	Excavation of the northern tunnels planned to commence.
December 2031	Estimated project completion.

See Appendix 3 for a detailed chronology of events.

2.5 Alliance arrangements for main works

2.5.1 The T2D project main works are being delivered using a project alliance

The T2D project main works are being delivered by the Alliance under a Project Alliance Agreement. A defining feature of an alliance contract is the collective management of risk and opportunity. Alliance participants jointly manage project risks and share in project outcomes. In other forms of contracting, the contractor is responsible for managing the risks allocated to it and bears the risk outcome.

Alliance contracting *– a government agency (the owner) works collaboratively with private sector parties (non-owner participants) to deliver major capital assets.*[4]

Other key features of alliance contracting include:

- a commitment to 'no disputes'
- best-for-project unanimous decision-making processes
- a 'no fault – no blame' culture
- participants act in good faith and with integrity
- transparency expressed as open-book documentation and reporting
- a joint management structure.[5]

While Alliance participants jointly manage the project, in the case of the T2D main works, the non-owner participants' (NOPs') pain-share[e] is capped. DIT, the owner, bears all financial consequences once the pain-share cap cost amount is exceeded. It is ultimately accountable to the SA Government for the use of public funds and project outcomes.

Owner *– the government agency responsible for delivering the investment objectives set out in the project's business case.*[6]

2.5.2 The Alliance participants

The Alliance has one owner participant and five NOPs, as shown in figure 2.6.

Figure 2.6: Alliance participants

Owner participant	Constructor non-owner participants	Designer non-owner participants	Maintenance and incident response non-owner participant
Commissioner of Highways (Chief Executive of DIT)	John Holland Pty Ltd Bouygues Construction Australia Pty Ltd	Jacobs Group (Australia) Pty Ltd Arcadis Australia Pacific Pty Ltd	Ventia Australia Pty Ltd[f]

DIT has two distinct roles under the Project Alliance Agreement, as shown in figure 2.7.

Figure 2.7: DIT's dual roles under the Project Alliance Agreement

DIT as Principal outside the Alliance	**DIT as owner participant** inside the Alliance
DIT is the Principal and is accountable for delivering project outcomes and value for money. In this role it acts as the client of the Alliance activities and oversees their performance.	As owner participant, DIT forms part of the Alliance team and works collaboratively with the NOPs to deliver the project on a best-for-project basis, through its representatives on the Alliance Leadership Team, Alliance Management Team and wider project team.

These roles operate simultaneously, requiring DIT to balance its collaborative role within the Alliance with its independent accountability to the SA Government.

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e Pain-share refers to the arrangement under the Project Alliance Agreement whereby the owner and NOPs share the financial consequences of project cost overruns relative to the target outturn cost.

f Ventia is involved in providing input into the design from an asset management perspective. There will be a separate Maintenance and Incident Response Alliance Agreement for the maintenance phase of the project.

2.5.3 Project Alliance Agreement

The Project Alliance Agreement sets out the commercial and legal terms for the NOPs to deliver the T2D project main works. It includes schedules that define the operating and management requirements for the Alliance and the scope and standard of the works to be delivered.

Under the Agreement, most risks and issues associated with delivering the T2D project main works are shared and managed collectively by Alliance participants. However, some risks are specifically retained by DIT as Principal and may have financial consequences if they materialise. These include:

- changes in regulatory environment
- excepted risks such as war, terrorism and similar external events
- specific ground conditions that could impact tunnelling operations, such as rock hardness or underground anomalies.

2.5.4 Overview of commercial arrangements

The Project Alliance Agreement's commercial framework is designed to align the commercial objectives of the NOPs with DIT's project objectives and encourage NOPs to achieve the performance levels required by DIT.

The Commercial Framework sets out the structure and principles that govern the NOPs' remuneration for the project. The NOPs' remuneration has three components:

- Reimbursable costs – direct project costs and indirect overhead costs that are specific to the project and reasonably incurred by the NOPs in performing the work.
- NOPs' fees – the NOPs' agreed profit margin and a contribution towards recovery of non-project-specific corporate overhead costs.
- Risk or reward amount – a performance-based payment to the NOPs that may be positive or negative and is determined by comparing actual and target performance in both cost and non-cost areas.

Target outturn cost

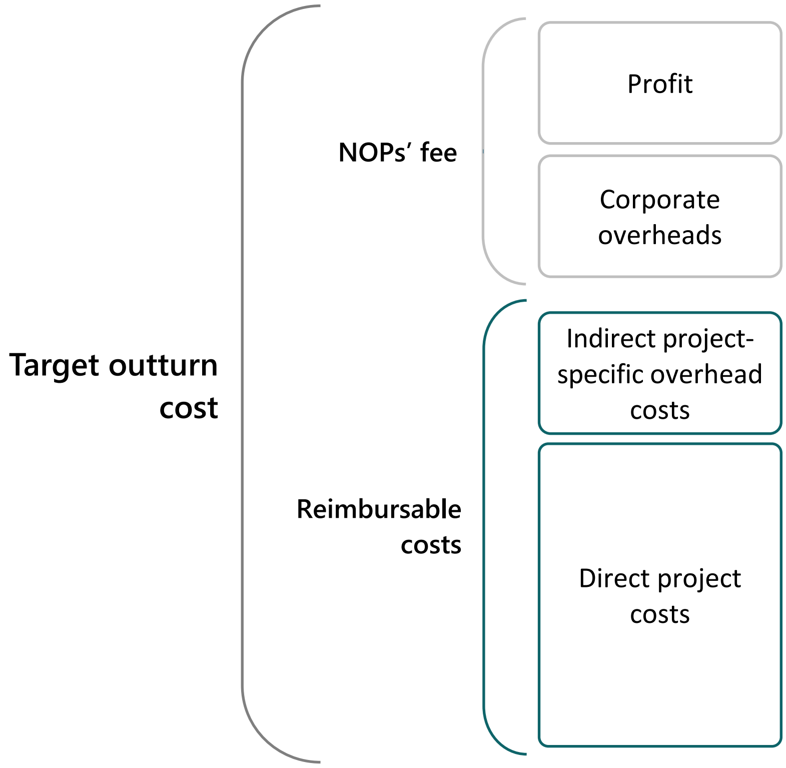
The target outturn cost is central to the commercial framework. At the end of the project, the actual outturn cost is compared with the target outturn cost to determine whether there has been a cost overrun or underrun for the project.

Target outturn cost – *the estimated cost of designing and constructing the assets It should reflect the project solution and commercial arrangements.*[7] *It comprises the pre-estimate of reimbursable costs, corporate overheads, profit and risk and contingency.*

Actual outturn cost – *the actual cost for delivery of the Alliance works inclusive of the non-owner participants' fee and reimbursable costs to the non-owner participants and the Principal.*

The components of the target outturn cost are shown in figure 2.8.

Figure 2.8: Target outturn cost components



Source: Department for Infrastructure and Regional Development 2015, Australian Government, *National Alliance Contracting Guideline – Guide to Alliance Contracting*.

The target outturn cost may only be adjusted in limited circumstances, such as if DIT changes the scope of the project.

Reimbursable costs are payable to the NOPs to compensate for costs directly incurred by the NOPs in the delivery of the project works. DIT is obliged to pay all reimbursable costs incurred by the Alliance, including if they exceed the target outturn cost.

Risk or reward amount

The risk or reward amount measures the Alliance's actual performance against the target outturn cost and other agreed project objectives, including milestone achievement. It has two components:

- Cost overrun or underrun payment.
- Key result area (KRA) performance adjustment.

Cost overrun or underrun payment

The Project Alliance Agreement outlines a 50/50 pain-share and gain-share arrangement[g] between the NOPs and DIT, under which differences between the actual outturn cost and target outturn cost are shared, as shown in figure 2.9.

[g] Gain-share refers to the arrangement under the Project Alliance Agreement whereby the owner and NOPs share the financial rewards of project cost underruns relative to the target outturn cost.

Figure 2.9: Cost overrun/underrun sharing

Cost overrun Actual outturn cost exceeds target outturn cost	The NOPs are responsible for 50% of the overrun, capped at the NOP fee.
Cost underrun Actual outturn cost is less than target outturn cost	The Principal pays the NOPs 50% of the underrun, capped at 50% of the NOP fee.

The NOPs' exposure to cost overruns is capped at the value of their fee, consistent with typical alliance contracting arrangements.[8] This means that, once the cap is reached, any further cost overruns are borne by the State. Conversely, the NOPs are incentivised to deliver the project below the target outturn cost through their 50% share of any cost underrun.

These arrangements mean that the NOPs' contractual financial incentive to minimise cost overruns is limited to the point at which their exposure reaches the cap.

Key result area performance adjustment

The Project Alliance Agreement sets several KRAs for the Alliance which are measured through specific key performance indicators (KPIs).

If the NOPs meet or exceed the minimum conditions of satisfaction (MCOS) for specific KPIs, they are entitled to a reward payment from the KRA performance pool. Failure by the NOPs to meet MCOS for specific KPIs will reduce the performance pool available for each individual KRA.

2.6 Governance and reporting arrangements

Effective governance is a critical success factor in the delivery of major infrastructure projects. Sound governance arrangements support clear accountability, informed decision-making, and timely responses to emerging risks and issues. Conversely, weak governance is widely recognised as a contributor to cost overruns, delays and poor project outcomes.[9]

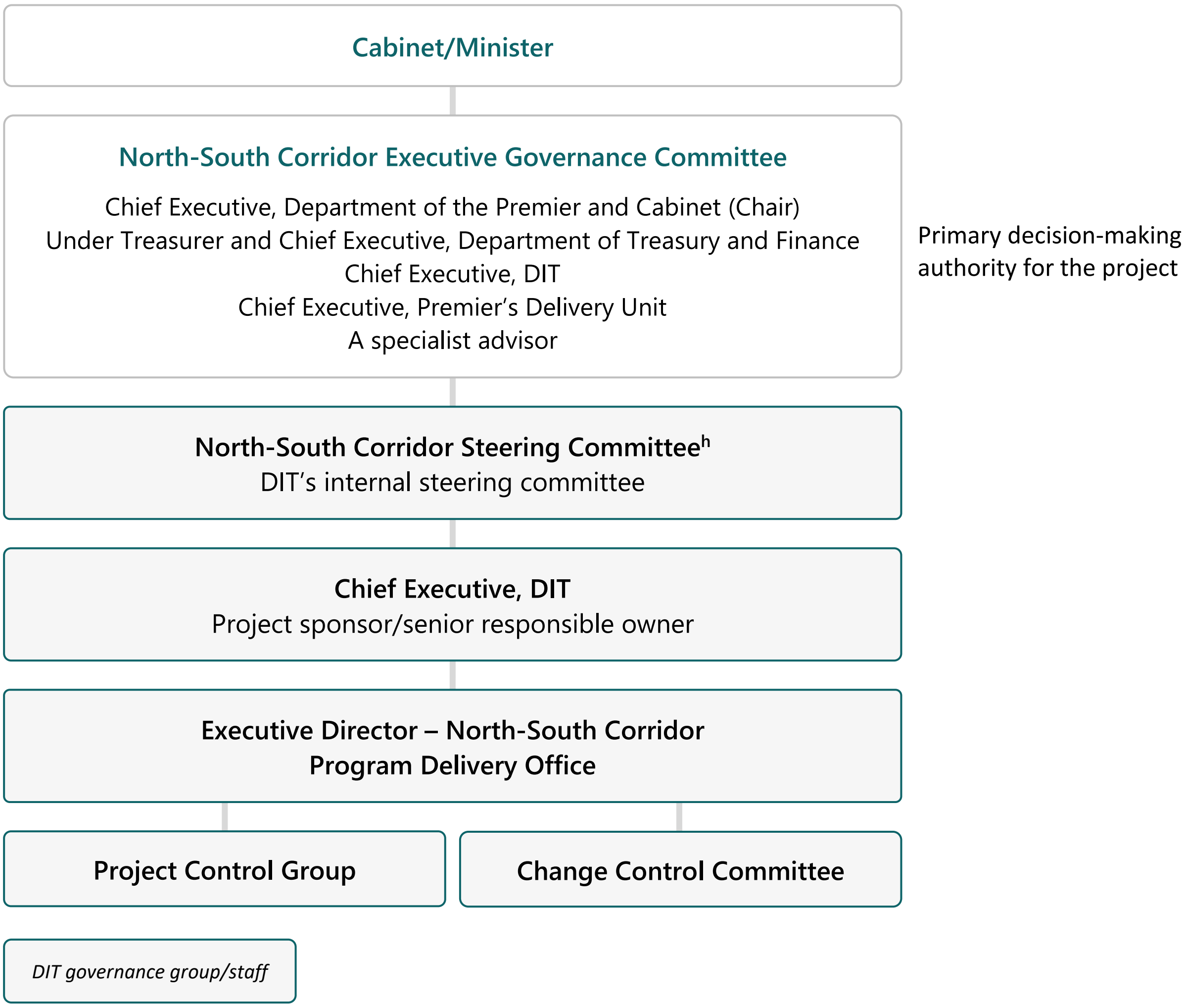
In an Alliance, multiple parties share responsibility for delivering the project and governance operates at two levels:

- outside the Alliance, where oversight, assurance and accountability are exercised by the SA Government (DIT)
- inside the Alliance, where governance arrangements support collaborative decision-making and project delivery.[10]

2.6.1 Governance arrangements outside the Alliance

The SA Government exercises its oversight, assurance and accountability for overall project outcomes through governance arrangements external to the Alliance. These arrangements support decision-making on key matters and enable DIT to monitor performance and respond to emerging risks and issues. The governance structure outside the Alliance is summarised in figure 2.10.

Figure 2.10: Project governance arrangements outside the Alliance



Principal's representative

Under the Project Alliance Agreement, the Principal's representative acts on behalf of DIT to administer the Agreement. The role is independent of the Alliance and is responsible for performing the obligations and exercising the contractual functions and powers of DIT under the Agreement.

[h] The Commonwealth Government has a member on the North-South Corridor Steering Committee.

2.6.2 Governance arrangements inside the Alliance

The Project Alliance Agreement establishes the governance arrangements within the Alliance. These arrangements include governance groups responsible for strategic direction and decision-making, supported by management and project delivery teams. The governance structure within the Alliance is summarised in figure 2.11.

Figure 2.11: Project governance arrangements within the Alliance

Executive Relationship Board

Advisory forum for strategic relationship and Alliance performance oversight (not a decision-making body)

The DIT Chief Executive is the Chair of this Board

Alliance Leadership Team

Primary strategic and decision-making body for the Alliance

DIT has member representatives on this team

Alliance General Manager

Responsible for day-to-day leadership and delivery

Alliance Management Team

Manages delivery and escalates risks and issues to the Alliance Leadership Team

DIT is represented on this team

Wider project team

Delivers project activities under the Alliance Management Team's direction

DIT has employees who are part of the wider project team

2.6.3 Reporting arrangements

The Project Alliance Agreement requires the Alliance to provide DIT with a monthly report to support DIT's oversight of the project. This reporting includes key information on project performance, including the Alliance risk register and issue register.

DIT has established a Program Delivery Office (PDO) to oversee project delivery and support reporting to governance groups. The PDO reviews the Alliance monthly reports and prepares reports for the Executive Governance Committee and DIT project governance groups, including on project risks and issues.

2.7 Risk and issue management

2.7.1 Importance of effective risk and issue management for the T2D project

The T2D project is inherently a high-risk project in terms of its cost, scale, complexity and long delivery time frames. Infrastructure Australia has identified several key risks for a major road tunnelling project of this type, including:

- geotechnical/ground conditions differ from those expected during project planning
- work packages and related projects may progress at different speeds, leading to coordination challenges and delays in meeting key project milestones
- insufficient skilled resources available in the market to adequately support the project
- unexpected or unforeseen utility assets and services that need relocation
- delays with approvals needed to start construction activities.[11]

Risk – *Risk is the effect of uncertainty on objectives.*[12] *Risk refers to the possibility an event or condition will occur that may positively or negatively affect the achievement of objectives.*

Other key risks for the T2D project include:

- cost escalations result in the actual outturn cost exceeding the target outturn cost
- incomplete or evolving design that triggers an adjustment event that extends project time frames and increases costs
- the performance or reliability of the tunnel boring machine (TBM) is lower than planned due to mechanical failure, maintenance challenges or interaction with ground conditions.

Insight

The T2D project is considered a mega-project.[13] Mega-projects are more likely to go over budget and experience delays compared to smaller, low-value projects, due to their long planning horizons and complex interfaces, as well as other factors. Studies have found that the large majority of mega-projects go over budget, over time, or both.[14] [15] [16]

While risks represent potential events or conditions that may affect the achievement of project objectives, issues represent events or conditions that have occurred or are occurring and require active management to minimise their impact. When a risk materialises, it may become an issue.

Issue *– An event or condition that has occurred, is occurring, or is imminent and is impacting, or likely to imminently impact, the achievement of objectives.*

The difference between a risk and an issue is shown in figure 2.12.

Figure 2.12: Examples of risks versus issues

Risk event occurs

Issues may give rise to new or changed risks

Risk Uncertain event/condition that could impact the project	**Issue** Event/condition that has or is impacting the project
Geotechnical/ground conditions may differ from those anticipated during project planning.	Unforeseen ground conditions are encountered during tunnelling, leading to delays and additional costs.
Unexpected or unforeseen utility assets and services may be encountered during construction.	Unexpected utility assets and services are encountered during construction, requiring relocation, leading to delays and additional costs.
Delays may occur in obtaining approvals required to commence construction activities.	Required approvals are delayed, preventing construction activities from commencing, leading to delays and additional costs.

Effective risk and issue management is critical to the successful delivery of the T2D project. If risks occur or issues are not resolved, the project may end up costing more, taking longer, delivering less than planned, or not achieving the intended results.

Risk management – *The systematic process of identifying, analysing, evaluating and treating potential events or conditions that could affect the achievement of objectives. It encompasses realising opportunities while reducing the negative impact of risks.*

Issue management – *The process of identifying, prioritising, managing and resolving events or conditions that have occurred or are occurring and affect the achievement of objectives.*

2.8 Key factors that could affect project delivery

As at 30 June 2026, DIT reporting indicates that the T2D project remains within its approved budget of $15.4 billion, and that the Alliance has also achieved key contractual milestones to date relating to the three TBMs, including factory acceptance testing, delivery, cutterhead assembly and main bearing delivery.

In our view, there are several factors that could affect the delivery of the T2D project on time and within budget as it progresses. These include:

- design delivery – delays in completing and approving detailed design could delay or disrupt the start of construction work, affecting the planned order of works and increasing the potential for project delays and additional costs

- industry capacity and workforce availability – the T2D project places significant pressure on South Australia’s construction workforce and supply chains that may impact cost, productivity and delivery time frames
- dependencies on supporting infrastructure – potential delays associated with access to the Transport Management Centre impacting the Alliance’s testing and commissioning activities
- utilities relocation and interfaces – relocating utilities presents ongoing delivery challenges, particularly in the north and central project precincts
- geopolitical and global supply chain impacts – ongoing conflict in the Middle East may continue to disrupt key energy shipping routes, increasing fuel costs and reducing availability. This could affect diesel and other energy inputs needed for tunnelling, spoil haulage, power supply and construction logistics. Rising costs of petroleum-based materials (eg bitumen and petrochemicals) may also add cost pressures and cause delays if supplies are not available when needed.

3 What DIT did well

DIT has established a structured approach to risk and issue management which consists of the following effective practices.

3.1 Governance and reporting arrangements established for managing risks and issues

DIT has established structured governance arrangements to support the management and oversight of project risks and issues. Both DIT and the Alliance have developed risk management plans outlining their approaches to identifying, assessing, evaluating, treating and monitoring risks for the T2D project. These plans align with the Australian Standard ISO 31000:2018 *Risk Management: Guidelines*.

DIT has defined risk management roles and responsibilities in its project risk management plan. Its project governance and assurance plan, together with the terms of reference for governance groups, further outlines oversight responsibilities for project risks and issues. The PDO reports significant project risks and issues that it manages to governance groups.

The PDO also receives monthly reporting on Alliance managed risks, including the Alliance risk register and a consolidated view of the overall project risk exposure. This reporting supports DIT's visibility of the aggregate risk profile and trends over time. DIT is represented on the Alliance Leadership Team, where project risks and issues are regularly discussed.

DIT monitors the Alliance's approach to risk management by:

- attending the Alliance's monthly risk review meetings and recording its observations
- reviewing monthly Alliance reports and preparing summaries of key matters for the Principal's representative and DIT members of the Alliance Leadership Team.

DIT has established the Executive Relationship Board through the Project Alliance Agreement. It is comprised of Chief Executive representatives from the Principal and each NOP. The Project Alliance Agreement provides that the Executive Relationship Board serves as a forum to discuss project risks and opportunities, the health of the Alliance in relation to scope, budget, schedule and risk, and matters that may affect future project milestones.

DIT has also established an Alliance Peer Review Group to provide expert advice on key aspects of the project, including risk management. It is comprised of three independent members with experience in major infrastructure project delivery.

3.2 Structured processes to identify, analyse and evaluate risks and issues

DIT has established structured processes to identify, analyse and evaluate project risks and issues, including:

- identifying project objectives and benefits, and defining its risk appetite

- establishing criteria to analyse risks based on likelihood and consequence, and setting target risk levels to guide treatment decisions
- establishing criteria to prioritise issues based on their consequences and assigning an importance rating
- conducting risk workshops and monthly director risk review meetings to identify and review risks.

The PDO and the Alliance maintain risk registers that record key information for each risk, including descriptions, causes, consequences, ownership, analysis, controls and treatments. The PDO's risk register records risks arising from the delivery of the T2D project that are managed by the PDO, while the Alliance's risk register records risks relating to the T2D project main works that are jointly managed by the Alliance participants. These registers collectively capture risks across key aspects of the project, such as tunnelling, design, utilities relocation, resource availability and cost.

The PDO maintains an issue register to record project issues that it manages. This register includes issue descriptions, owners, causes, ratings and mitigation actions.

DIT and the Alliance have identified a range of controls, treatments and actions to address risks and issues affecting delivery of the T2D project main works.

Risk management training has been delivered across PDO functional teams to support consistent application of risk management practices.

3.3 Targeted processes to manage high-impact delivery risks

DIT has established targeted processes to manage the following key risk areas arising in the early phases of the project that could materially affect the delivery of the T2D project:

- land acquisition, property demolition and handover to the Alliance
- design review
- underground land acquisition
- council engagement and interfaces.

An example of how DIT manages risks related to land acquisition, property demolition and handover to the Alliance is shown in figure 3.1.

Figure 3.1: DIT targeted risk approach for land acquisition

Land acquisition, property demolition and handover to the Alliance

Risk

Land required on the corridor for construction may not be vacant when required for the works.

The Alliance requires timely access to land and site areas to undertake the main works. DIT was responsible for acquiring the land needed for the project and the demolition and site clearance of that land for handover to the Alliance.

Risk consequence

Delays in land access could force work to be deferred or re-sequenced, reducing productivity and placing pressure on the schedule and project costs.

Action DIT implemented to manage the risk

DIT implemented internal reporting and dashboards to monitor acquisition and handover progress, including reporting to and monitoring by governance groups. This supported timely site availability for the Alliance and minimised impacts on construction sequencing.

4 DIT's oversight arrangements for significant Alliance risks and issues

4.1 Introduction

4.1.1 The Alliance is responsible for day-to-day management of main works delivery risks and issues

The Project Alliance Agreement is designed so that DIT, as the Alliance owner participant, and the NOPs share risks and rewards, and work collaboratively to achieve outcomes in the best interests of the project. Under the Agreement, the Alliance is responsible for day-to-day management of risks and issues that arise in delivering the T2D project main works.

While the Alliance performs this role, DIT, as the Principal, remains accountable for delivering project outcomes and value for money. DIT is exposed to the financial consequences of risks and issues if they materialise, including all costs once the NOPs' pain-share cap is exceeded.

Some risks and issues, if realised, could have significant consequences for DIT and the SA Government. This requires DIT to actively oversee how the Alliance manages risks and issues, supported by clear frameworks, reporting and governance processes. Without effective oversight, DIT may have:

- reduced visibility of emerging risks and issues
- limited ability to assess whether risks and issues are being managed appropriately, including from a whole-of-government perspective
- less assurance that treatments and actions are being implemented effectively.

Alliance-managed risk *– A risk that arises from delivering the T2D project main works and is jointly managed by the Alliance participants, where the consequences are shared in line with risk sharing and pain/gain-share arrangements in the Project Alliance Agreement.*

Alliance-managed issue *– An issue that arises from delivering the T2D project main works and is jointly managed by the Alliance participants, where the consequences are shared in line with risk sharing and pain/gain-share arrangements in the Project Alliance Agreement.*

4.1.2 DIT's oversight of the risks and issues managed by the Alliance

The Project Alliance Agreement requires the Alliance to provide regular information to support DIT's oversight of T2D project main works risks and issues. This includes, as part of its monthly reporting:

- a risk register
- a risk and opportunities report
- an issue register
- key and emerging issues, with action plans and status.

DIT performs its oversight role through a range of activities, including:

- attendance by the PDO Risk Management Team at the Alliance's monthly risk review meetings
- review of the Alliance's monthly reports by the PDO Project Controls Team and preparation of a report summarising key matters
- participation in Alliance governance forums, including the Alliance Leadership Team, where project risks and issues are discussed.

These arrangements are intended to provide DIT with visibility of significant Alliance risks and issues and support its ability to monitor, assess and obtain assurance over how they are managed by the Alliance.

4.2 Findings and recommendations

4.2.1 DIT should clearly define how it oversees Alliance-managed risks and issues that present significant exposures to the State

Recommendation

DIT should update its risk and contingency management plan to clearly explain how it oversees risks and issues managed by the Alliance that present significant exposures to DIT as the Principal and to the State. This should include:

- clearly articulating the purpose and scope of DIT's oversight role as Principal
- defining the criteria for significant Alliance-managed risks and issues that require specific oversight by DIT as Principal
- describing how DIT participates in, and obtains assurance over, the Alliance's prioritisation and ongoing management of risks and issues
- establishing criteria and processes for reporting and escalating significant Alliance-managed risks and issues to project governance groups external to the Alliance.

Finding

The Alliance is responsible for the operational management of main works project delivery risks and issues in line with the Project Alliance Agreement. However, DIT, as Principal, retains ultimate accountability for project outcomes and value for money,[17] and is exposed to the financial consequences of Alliance-managed risks and issues if they materialise.

This requires defined frameworks and processes that enable DIT to:

- obtain visibility of significant Alliance risks and issues as they emerge
- assess its exposure and determine whether Alliance risks and issues exceed its risk appetite or tolerance, requiring escalation or intervention
- confirm that risk and issue treatments are implemented and operating as intended.

DIT advised us that it has visibility of and involvement in, the management of Alliance risks and issues through access to the Alliance risk and issue registers and participation in Alliance governance, including representation on the Alliance Leadership Team. DIT staff are also embedded within the Alliance to support oversight of project delivery.

These arrangements support DIT's visibility of Alliance risks and issues. However, DIT's risk and contingency management plan does not clearly set out how these activities operate as an oversight framework to support DIT's role as Principal, including:

- how DIT's oversight role as Principal is distinguished from its role within the Alliance
- how DIT oversees the prioritisation of Alliance-managed risks[i] and issues
- when matters require escalation or intervention from a Principal perspective
- the criteria and processes for reporting and escalating significant risks and issues managed by the Alliance to DIT project governance groups and the Executive Governance Committee.

DIT's response

The Department acknowledges the recommendation and will action as appropriate.

The Department has established a comprehensive and mature framework for managing risks and issues for the T2D Project, underpinned by the North-South Corridor Program Delivery Office (NSC PDO) Risk and Contingency Management Plan (RCMP) aligned to ISO 31000 principles and a structured governance model. This framework defines clear roles, responsibilities and escalation pathways, supported by formal governance bodies. These arrangements ensure that significant risks and issues are identified, reviewed and escalated in a structured and timely manner across all levels of governance. The Department considers that risks that present exposure above appetite have been managed to date through an extensive governance and assurance approach, including direct oversight through Owner Participant participation in Alliance governance forums, which includes three senior DIT Executives as members of the Alliance Leadership Team (ALT), who provide ongoing review and oversight of Alliance Main Works risks and issues.

The Department will continue to update its NSC PDO Risk Management Plan.

[i] The *National Alliance Contracting Guideline – Guide to Alliance Contracting* states that 'In alliance contracting, the Owner must be able to participate effectively in this process of identification and assessment of risk, because they will share the consequences of that risk assessment under the collective risk-sharing arrangements (and indeed bear all the consequences once the maximum pain-share for the NOPs is exceeded).'

4.2.2 DIT should strengthen its assessment of Alliance-managed risks that present significant exposures to the State

Recommendation

DIT should perform ongoing reviews to identify significant Alliance-managed risks that require specific oversight by DIT as Principal. Assessments of these risks should be documented, including at a minimum:

- DIT's assessment of its exposure to the risk as Principal (as distinct from the Alliance's assessment of the risk from the Alliance's perspective)
- DIT's view of the adequacy of Alliance risk treatments from a Principal and whole-of-government perspective
- any specific actions or responses required by DIT as Principal.

DIT should also ensure this information is reported in a way that enables project governance groups external to the Alliance to understand the State's exposure, how it is being managed, and whether intervention or escalation is required.

Finding

Significant risks managed by the Alliance can materially affect the project's cost, schedule and delivery outcomes. DIT's participation in Alliance governance supports the management of these risks, but this does not in itself provide clear documentation of how DIT, as Principal, has assessed its exposure or assured itself that significant Alliance risks are being appropriately managed.

The PDO's risk register does not consistently identify and document risks managed by the Alliance that, if realised, would have a significant impact on DIT as Principal and the SA Government. While some of these risks are referenced indirectly in the PDO's risk register, they are not recorded in a way that enables specific oversight.

DIT advised us that duplication of risks across the Alliance and PDO risk registers is undesirable because it can lead to potential accountability and governance issues. We agree that the Alliance risk register should remain the single source of truth for the identification, assessment and management of Alliance risks. However, to support its role as Principal, DIT should maintain clear and consistent documentation of its assessment of exposure to significant Alliance-managed risks. This includes how it evaluates the adequacy of their management and determines whether additional responses are required.

DIT's response

> *The Department acknowledges the recommendation.*
>
> *The Department considers that risks presenting significant exposure to the State have been identified, assessed and reported to governance groups through established governance and reporting arrangements as demonstrated*

to Audit Office through examples as part of the Audit process. These risks have been appropriately escalated and considered by governance bodies.

This oversight is further reinforced through governance and assurance arrangements at the Alliance level. Three senior DIT executives, as members of the ALT, actively monitor and review Alliance Main Works risks and issues. Material risks and issues are escalated and reported to the Executive Governance Committee (EGC). In addition, the Executive Relationship Board (ERB) comprising senior representatives of Alliance Non-Owner Participants and the Alliance Peer Review Group (APRG) comprising independent industry experts support Principal level oversight and decision making.

The Department will continue to strengthen the way it records its own oversight assessment of significant Alliance-managed risks.

4.2.3 Further detail needed in reporting to project governance groups to support oversight of significant Alliance-managed risks and issues

Recommendation

DIT should provide regular reporting to project governance groups on all risks and issues managed by the Alliance that present significant exposures to DIT as Principal and to the State. At a minimum:

- reporting on risks should include the risk description, context and potential impact, current risk rating, key mitigations and the implementation status and effectiveness of those mitigations
- reporting on issues should include the issue description, impact and consequences, issue rating, agreed actions and the implementation status and effectiveness of those actions.

Finding

Reporting detailing all significant risks and issues managed by the Alliance was not regularly provided to project governance groups from the start of the Project Alliance Agreement in September 2024.

Reporting on significant Alliance-managed risks

DIT advised us that governance groups received information on Alliance-managed risks through a range of mechanisms, including individual papers, presentations and reports. DIT also advised that this information captured significant project risks.

The Alliance provides DIT monthly information on its ‘top 10 risks’, based on potential cost impact and probability. These risks have the potential to materially affect the project’s cost and DIT’s exposure under the pain/gain-share arrangement in the Project Alliance Agreement.

These risks were not explicitly reported to the Executive Governance Committee and Steering Committee until March 2026. When reporting was provided, it outlined the Alliance's top 10 risks and associated controls, but did not include information about the implementation status or effectiveness of those controls.

The Project Control Group received information on the 'top 10 risks' as advised by the Alliance. However, only risk titles were reported, with no information on the context, impact, implementation status or effectiveness of risk mitigations. While project governance groups received information on significant risks, the level of detail provided did not fully support them to:

- understand the nature and significance of risk exposures
- assess whether risk mitigations were adequate and operating as intended
- determine whether risks exceeded DIT's risk tolerance, requiring escalation or intervention.

Reporting on significant Alliance-managed issues

Before January 2026, the Alliance did not provide DIT with its issue register. Without this information, it was difficult for DIT to confirm that all significant Alliance-managed issues were reported to the Executive Governance Committee and DIT's project governance groups, including information on the status and effectiveness of issue actions.

From January 2026, the Alliance commenced providing an issue register to DIT. The register identified a number of issues assessed by the Alliance as having a high criticality. However, these issues were not reported to the Executive Governance Committee and Steering Committee, including information necessary to assess how they were being managed.

In February 2026, the Project Control Group received a report on key Alliance-managed main works issues, including issue descriptions, criticality, actions and target completion dates. However, this reporting did not include sufficient information on issue impacts or the status and effectiveness of actions.

Overall, while project governance groups received some information on Alliance-managed risks and issues, the level of detail should be improved to support them to understand significant exposures, assess whether mitigations and actions are adequate and determine whether escalation and intervention is required.

DIT's response

> *The Department acknowledges the recommendation and will action as appropriate.*
>
> *The Department has established a comprehensive governance framework which provides regular and structured reporting including risk and issues through regular performance reporting, technical papers, briefings and discussion papers. The approach has allowed Project governance to have focused discussions to enable decisions to be made effectively.*

The approach to risk management has allowed for Project governance to be well informed on emerging risks.

The Department will continue to refine the content of the significant exposure Alliance-managed risks and issues reporting so that it remains proportionate and focused on matters of material significance for decision making on key mitigations.

4.2.4 DIT should ensure it receives additional information to assess the effectiveness of Alliance risk controls and treatments

Recommendation

DIT should strengthen its oversight of significant Alliance-managed risks by ensuring it receives sufficiently detailed and regular information to monitor the implementation and effectiveness of controls and treatments. This information should, at a minimum:

- clearly distinguish between active controls and planned treatments
- outline implementation status, including key milestones
- support assessment of whether controls and treatments are effective in reducing residual risk toward the agreed target risk level.

Finding

The Alliance began reporting on the risks it manages to DIT from February 2025. DIT did not receive information from the Alliance on the controls and treatments addressing these risks until October 2025. During this period, DIT was not able to confirm that treatments had been identified for significant Alliance risks or monitor the implementation and effectiveness of risk controls and treatments.

DIT now receives a copy of the Alliance's controls register each month. The register details controls and treatments to mitigate or manage each risk, the responsible officer and the effectiveness of the controls and treatments. This register does not:

- clearly distinguish between active controls and planned treatments
- include time frames, milestones and performance measures to support monitoring of implementation and effectiveness.

As a result, the information provided by the Alliance does not fully support DIT to monitor whether the Alliance's risk controls and treatments for significant risks are being implemented and are effective in reducing risk.

DIT's response

The Department notes the recommendation.

The Department receives detailed information on Alliance-managed risk controls information through a combination of Alliance reporting, established governance processes and direct engagement with risk and issue owners.

Control effectiveness is actively assessed as part of the Department's structured and ongoing risk management approach. These assessments are informed by continuous engagement with Project teams, functional leads and technical experts, ensuring that controls are assessed in the context of Project delivery conditions. Outcomes from these reviews are captured within the Alliance Master Risk Register.

The Department will continue to work with the Alliance regarding the presentation of information in the monthly Alliance controls register.

4.2.5 DIT should document how its risk criteria and risk appetite differ to those used by the Alliance and the implications

Recommendation

DIT should document how the Alliance's risk assessment criteria and risk appetite map to its own, to support a clear understanding of the differences and use this mapping to inform risk reporting, escalation and oversight processes for project governance groups.

Finding

The Alliance reasonably uses its own risk assessment criteria and risk appetite to analyse risks rather than DIT's. However, DIT still requires assurance that Alliance-managed risks are assessed and prioritised in a way that reflects DIT's risk appetite.

DIT has not clearly documented how the Alliance's risk assessment criteria and risk appetite map to its own to support a clear understanding of the differences and their implications for risk reporting, escalation and oversight.

As a result, DIT and project governance groups may not consistently interpret project risk information provided by the Alliance from a Principal's perspective or fully understand the exposure and potential consequences of Alliance-managed risks for DIT and the SA Government.

DIT’s response

The Department notes the recommendation.

Under the Project Alliance Agreement (PAA), the Alliance operates within a shared risk environment where risks are collectively identified, assessed and managed in accordance with Alliance principles.

The Alliance’s risk framework has been specifically developed for the delivery of the T2D Project approved through the Alliance governance arrangements. This approach is appropriate for the Project and reflects the need for a fit-for-purpose framework. The Department has established a robust reporting framework that enables effective governance of Alliance risk information ensuring that risks are understood, assessed and escalated as required.

5 Reporting on DIT Program Delivery Office-managed risks and issues

5.1 Introduction

5.1.1 The PDO manages risks and issues for the broader T2D project

DIT is responsible for managing risks and issues relating to delivery of the broader T2D project, reflecting its accountability to the SA Government for project delivery. These risks and issues are managed by the PDO on behalf of DIT. This contrasts with risks and issues relating to delivery of the T2D project main works, which are jointly managed by Alliance participants.

PDO-managed risk *– A risk arising from the delivery of the T2D project that is managed by the PDO on behalf of DIT.*

PDO-managed issue *– An issue arising from the delivery of the T2D project that is managed by the PDO on behalf of DIT.*

The PDO maintains risk and issue registers to record and manage PDO-managed risks and issues arising from delivering the T2D project. These registers support identification, assessment and management of these risks and issues.

5.1.2 Governance groups require clear, timely and decision-relevant reporting on risks and issues

Effective governance of major infrastructure projects relies on clear, timely and decision-relevant reporting on project risks and issues. Reporting to governance groups should provide a complete view of exposure, together with sufficient information on actions taken to manage risks and issues. This includes not only identifying key risks and issues, but also outlining the treatments and actions in place, their implementation status, and whether they are effective in reducing risk exposure or resolving issues.

5.2 Findings and recommendations

5.2.1 Reporting to DIT governance groups should include more detail on treatment status for significant PDO-managed risks and issues

Recommendation

DIT should enhance risk and issue reporting to its project governance groups to include further information about the implementation status and effectiveness of treatments for all significant PDO-managed risks and issues. At a minimum, reporting should enable governance groups to understand:

- what actions have been implemented
- the progress of outstanding actions
- whether treatments are effective in reducing risks or resolving issues.

Finding

The Steering Committee and Project Control Group are responsible for monitoring project risks and issues, including reviewing significant risks and overseeing associated treatment plans. To fulfil this role, these governance groups require regular and reliable information on risk and issue exposures, and on the implementation and effectiveness of risk treatments and issue actions.

We found that reporting to the Steering Committee and Project Control Group should be strengthened to include information about the implementation status and effectiveness of individual treatments for significant PDO-managed risks and issues.

Risk reporting included summary information on treatment status and brief descriptions of treatments for significant PDO-managed risks. However, this information did not include details on whether specific treatments were being implemented as intended, were delayed, or were effective in reducing risk exposure.

Issue reporting should also be strengthened. In particular:

- before October 2025, reports included little or no information on significant issue actions
- from October 2025, reports identified issue actions, but did not provide information on their implementation status or effectiveness
- from December 2025, planned resolution dates were introduced, but these did not provide visibility of action progress or effectiveness prior to resolution.

DIT advised us that governance groups received additional briefings and papers on the effectiveness of risk treatments and issue actions. While we observed some briefings and papers referring to individual risk treatments and issue actions, these were not consistently provided for each significant risk and issue, or at each meeting. Where provided, they did not always include clear information on the implementation status and effectiveness.

DIT's response

> *The Department acknowledges this recommendation and will action as appropriate.*
>
> *The Department has established a comprehensive, structured and mature approach to reporting on PDO-managed risks and issues. This approach is formalised by the NSC PDO Risk Management Plan and supported by an integrated governance and assurance framework, which ensures that risks and issues are identified, assessed, monitored and reported in a consistent and timely manner across governance groups.*
>
> *The Department notes that its governance groups already receive regular reporting on significant PDO-managed risks and issues, supported where required by technical risk briefings, presentations, technical risk papers and*

project updates. The Department considers those arrangements have provided governance groups with meaningful visibility of significant matters and how they are being managed by the Project.

The Department will continue to refine the presentation and consistency of reporting where this enhances clarity particularly whether treatments are effective in reducing risk. This is viewed as continuous improvement to an already effective and fit-for-purpose framework.

5.2.2 Reporting to Executive Governance Committee on significant PDO-managed risks and issues should be further improved

Recommendation

DIT should provide more information in reports to the Executive Governance Committee to support it in assessing whether significant PDO-managed risks and issues are being effectively managed. Reporting should include:

- the implementation status and effectiveness of treatments and actions for significant risks and issues
- information to support an assessment of whether these treatments and actions are reducing risk or resolving issues
- matters requiring escalation, acceptance or changes to risk tolerance.

Finding

The Executive Governance Committee is responsible for overseeing the key elements of the T2D project. Effective oversight requires regular reporting on significant risks and issues, including their treatments and whether actions are working.

Before December 2025, the Executive Governance Committee received information on a range of significant PDO-managed risks and issues through papers, presentations and matters escalated for approval.

This reporting included a list of PDO-managed risks rated ‘high’ and a description of each risk. However, it did not include target or residual risk levels, planned treatments, their implementation status, or whether treatments were effective. Reporting on significant (high-rated) project issues recorded in the PDO issue register was also not provided on a regular or consolidated basis, including information on the status and effectiveness of issue actions.

As a result, the Executive Governance Committee had visibility of significant PDO-managed risks and issues, but it may not have had information to fully support its oversight of whether they were being effectively mitigated.

From December 2025, reporting to the Committee improved with the introduction of regular reports detailing all significant PDO-managed risks and issues. These reports included descriptions of key risk treatments and issue actions. However, they did not include information on the implementation status or effectiveness of risk and issue treatments, for example whether the treatments and actions were under way or complete, and whether they were effective in reducing the risk exposure or resolving the issue.

DIT's response

> *The Department acknowledges this recommendation and will action as appropriate.*
>
> *The Department has established a structured and mature approach to reporting PDO-managed risks and issues to the Executive Governance Committee, supported by a broader governance framework. Together all these forums operate as a layered governance model, ensuring that risks are progressively reviewed, refined and escalated in a structured and consistent manner prior to consideration.*
>
> *The Department notes that, throughout the Project lifecycle, the Executive Governance Committee has received extensive information on PDO-managed risks and issues through papers, briefings and presentations.*
>
> *The Department will review and refine the way significant PDO-managed risks and issues are effectively managed and summarised for Executive Governance Committee.*

5.2.3 PDO-managed risks above target risk level were not consistently reported to project governance groups

Recommendation

DIT should consistently report to project governance groups all risks where the residual risk level exceeds the target risk level. Reporting should be proportionate to the significance and potential impact of the risks, with more detailed information provided for higher consequence risks, and:

- explain why the risk remains above the target risk level
- outline the risk treatments being considered or implemented to reduce the risk
- explain the residual risk exposure where further risk reduction is not considered feasible.

If target risk levels no longer reflect the desired risk appetite, they should be reviewed and updated in the risk register, and changes reported to the governance groups.

Finding

Target risk levels are a key reference point for assessing whether risks are being managed within the level of risk the project is willing to accept. Project governance groups require visibility of all risks that exceed the target risk level to:

- assess whether additional treatments are feasible
- understand the residual exposure where further risk reduction is not feasible
- make informed decisions about risk acceptance, prioritisation, escalation or changes to risk tolerance.

Target risk level *is the level of risk the project aims to achieve and is willing to accept.*

Residual risk level *is the level of risk after controls and treatments have been applied.*

Where residual risk exceeds the target level, the risk remains above tolerance, requiring further action or acceptance.

The *North-South Corridor Risk and Contingency Management Plan* states that 'all risks need to be managed, irrespective of the level of risk, to meet the target risk level (risk appetite)'.

We found that risks exceeding the target risk level were not reported to the Executive Governance Committee. We also found the risk and issue report provided to the Steering Committee and Project Control Group did not highlight risks in the PDO risk register where the residual risk exceeded the target risk level.

Where risks that exceed target risk levels are not reported for governance consideration, risk acceptance for these risks becomes implicit. This increases the likelihood that risk exposures are carried without informed approval.

DIT's response

The Department acknowledges this recommendation and will action as appropriate.

The Department's current practice has been to focus governance attention on risks that are materially significant in the context of Project delivery.

This approach reflects the practical reality of a major project, where governance reporting must support timely decision-making and effective oversight.

The Department acknowledges that governance groups should have visibility of risks that remain above target risk levels where the residual exposure is material and where governance action, escalation or risk acceptance may be required.

The Department will continue to refine reporting thresholds and explanatory narrative so that above target risk levels are brought to the attention of the relevant governance bodies, as required.

6 Alliance issue management

6.1 Introduction

6.1.1 Importance of effectively managing issues

On a large and complex project such as the T2D project, issues are inevitable and can emerge quickly as design, construction and external conditions change. Managing issues effectively is critical to ensure issues are identified early, prioritised appropriately and resolved in a timely manner. Effective issue management arrangements typically include:

- a documented issue management plan outlining how issues are identified, prioritised and addressed
- clear roles and accountabilities for issue ownership and resolution
- structured tracking of issues through a register
- defined action plans to resolve or mitigate significant issues
- regular reporting on significant issues, including the status of action plans and progress toward resolution.

Where issues are not effectively managed, they may not be prioritised appropriately or resolved in a timely manner, increasing the risk that they escalate or recur. This can adversely affect the project's cost, schedule, quality and value for money.

6.1.2 DIT is exposed to the consequences if issues are unresolved or ineffectively managed

While the Alliance is responsible for managing issues with the T2D project main works, DIT, as Principal, remains accountable for project outcomes and is exposed to the consequences of unresolved or ineffectively managed issues.[18] For effective oversight, DIT must have access to regular, complete and reliable information on Alliance-managed issues, including the actions being taken to address them and their progress towards resolution.

6.1.3 The Project Alliance Agreement includes requirements to support DIT's oversight of issues managed by the Alliance

Under the Project Alliance Agreement, the Alliance is required to maintain an issue register and provide it to DIT as part of its monthly reporting. The Alliance is also required to report on key and emerging issues, including the associated action plans and their status. These arrangements are intended to provide DIT, as Principal, with visibility of project issues and enable it to monitor how they are managed and resolved.

6.2 Findings and recommendations

6.2.1 Establishment of Alliance issue register was delayed and it does not record all key information

Recommendation

DIT should work with the Alliance to ensure an issue register is maintained and provided to DIT as part of the Alliance's monthly reporting, in line with the Project Alliance Agreement. The issue register should provide enough information to allow DIT to clearly understand the nature, significance and status of project issues managed by the Alliance, and to systematically monitor progress towards their resolution.

Finding

Effective oversight of Alliance-managed issues requires DIT to have timely access to complete information on their identification, prioritisation and resolution.

The Alliance did not maintain or provide an issue register to DIT until January 2026, about 16 months after the start of the Project Alliance Agreement in September 2024. This reduced DIT's visibility of project issues managed by the Alliance and its ability to monitor their resolution during this period.

The issue register provided by the Alliance in January 2026 did not include key information such as issue causes and impacts, prioritisation rationale, action status and measurable indicators of effectiveness. This limits DIT's ability to assess whether issues are being effectively managed and resolved, and whether actions are progressing as intended.

DIT advised us that before the issue register was provided, project issues were discussed and managed through Alliance meetings, governance groups and forums, and were documented in various action lists and reports. Senior DIT staff were also embedded within the Alliance and received regular reporting on project matters.

Where issue information is dispersed across multiple forums and documents and not recorded in a single, structured register, it is more difficult to demonstrate in a consistent and transparent way that issues are being systematically identified, prioritised and tracked through to resolution.

DIT's response

> *The Department acknowledges this recommendation and will action as appropriate.*
>
> *The Alliance undertook a period of mobilisation following contract award as is normal with all major projects and this included the establishment of processes and procedures. The Department notes that the Alliance Issues Register was*

delayed but can confirm that the Alliance has routinely provided the Department with an Issues Register. During this mobilisation period issues were actively being managed through a combination of routine project controls processes, risk reviews, operational and governance forums including ALT review and oversight, and regular interaction with risk and issue owners across the Project.

Operating under an Alliance model, Department personnel are embedded directly within the Project team. This integrated structure ensures the Department maintains continuous, real-time visibility into emerging Project issues and their operational impacts. The Department's embedded presence within the Alliance, including senior personnel directly involved in Alliance governance and delivery forums, provides continuous and real-time visibility of emerging issues and their impacts. Issues have been actively managed through established governance processes, with defined escalation pathways.

The Department will continue to work with the Alliance so that the issue register remains a practical and useful governance tool, containing sufficient information to understand the significance, status and progression of material Alliance-managed issues.

6.2.2 DIT should ensure the Alliance develops and implements action plans for all significant Alliance-managed issues

Recommendation

DIT should establish clear processes to:

- verify the Alliance has actions plans for key and emerging Alliance issues
- monitor the implementation and effectiveness of those plans.

This includes working with the Alliance to ensure that its monthly report clearly identifies key and emerging issues, along with action plans and their progress status.

Finding

Significant project issues require clear action plans that set out what will be done, by whom, and when. Effective oversight of project issues managed by the Alliance requires DIT to obtain clear and timely information to confirm that action plans:

- exist for significant issues
- are being implemented
- are effective in resolving or mitigating the issue.

The Alliance has not provided a clear and consolidated report to DIT that identifies key and emerging issues, together with associated action plans and their status, as required by the Project Alliance Agreement. While Alliance monthly reports refer to some issues, they do not consistently set out whether action plans are in place, what those actions involve or their implementation status.

Although the Alliance provided DIT with an issue register in January 2026, which briefly outlined actions to address key issues, it did not include information on action status or effectiveness. It was not provided to DIT until 16 months after the start of the Project Alliance Agreement.

DIT advised us that the PDO monitors how the Alliance manages issues through other activities including attending Alliance monthly risk review meetings and reviewing monthly reporting. However, we found:

- notes from Alliance review meetings were not recorded to document the issues identified, the actions agreed and the implementation and effectiveness of issue actions
- the reports summarising the review of Alliance monthly reports consistently reported that there were no new or current issues. This is inconsistent with references made to issues in the Alliance's own reporting.

Without clear and complete documentation linking issues to action plans and their implementation status and effectiveness, it is not evident how DIT demonstrates oversight of whether significant or emerging Alliance issues are being actively and effectively managed.

DIT's response

The Department acknowledges the recommendation and will action as appropriate.

The Department notes that action plans for Alliance-managed issues are already captured through Alliance processes, including within the Issue Register and associated reporting.

The Department has established a structured and embedded approach to the identification, management and resolution of issues across the T2D Project, supported by direct participation within the T2D Alliance and a layered governance framework. Action plans are integrated into the broader Project delivery model. Issues are identified through regular monitoring activities, including Alliance reporting, risk reviews and operational forums, and are assessed and escalated based on impact on project objectives.

The Department's embedded role within the Alliance provides a significant level of assurance over issue identification and management.

The Department will continue to work with the Alliance to strengthen the way significant issues and associated actions are identified in monthly reports together with action plans which are tracked as part of reporting requirements.

6.2.3 Alliance issue management arrangements should be documented

Recommendation

DIT should work with the Alliance to agree and clearly document the Alliance's issue management arrangements for significant project issues.

Finding

Effective management and oversight of project issues requires clear and documented arrangements for how issues are identified, prioritised, escalated and resolved. We found that the Alliance has not documented its approach to issue management, including:

- what constitutes an issue, how it differs from a risk and when escalation is required
- roles, accountabilities and time frames for issue ownership and resolution
- escalation pathways to the Alliance Leadership Team and DIT
- the criteria used to assess and prioritise issues, including how their significance and impact on project outcomes are determined, and how decisions about required actions are made
- arrangements to support consistent tracking and resolution of significant issues.

Where issue management arrangements are not clearly documented, project issues may not be managed in a consistent, transparent and timely manner, and escalation pathways and responsibilities may not be clearly understood and applied.

DIT's response

> *The Department notes that the recommendation relates to the documentation, rather than any absence of issue management capability or governance oversight. Issue management is actively embedded in the Project's governance model and is supported by strong operational practices, including continuous engagement with issue owners, real-time decision-making through Alliance forums and structured escalation to Project governance bodies.*
>
> *The Department will continue to work collaboratively with the Alliance to strengthen the documentation around the Alliance's issue management arrangements for significant project issues in a manner that supports consistent practice and assurance, while remaining fit for purpose.*

7 Assurance on controls, treatments and actions

7.1 Introduction

Effective risk and issue management for major infrastructure projects does not stop at identifying risks and issues. To be effective there must also be active ongoing monitoring of how the identified risks and issues are being mitigated and addressed.

Risks are managed through the implementation of controls and treatments. Controls are measures put in place to prevent or reduce the likelihood or consequences of risks. Where controls are insufficient to reduce a risk to an acceptable level, risk treatments should be developed and implemented to reduce the level of risk. Controls should be regularly reviewed to confirm they are operating effectively. Where controls are not operating as intended, corrective action should be taken.

Project issues are managed through the implementation of issue actions. Issue actions should be clearly defined and monitored to ensure they are implemented as intended and are effective in resolving the issue and preventing recurrence.

7.1.1 Elements of a good risk and issue treatment plan

Effective risk treatment and issue action plans typically include the key elements shown in figure 7.1.

Figure 7.1: Key elements of effective risk treatment and issue action plans

Understand the risk/issue

Identify and clearly describe the risk/issue

Identify key risk drivers and root causes

Define the risk treatment/issue action

Define the risk treatment/issue action (clear actionable steps)

Explain the rationale for the selected risk treatment/issue action

Identify resource requirements and implementation constraints

Assign responsibility for risk treatment/issue action implementation

Risk treatment/issue action implementation

Set time frames and milestones

Monitor risk treatment/issue action implementation

Define how risk treatment/issue action progress will be tracked against time frames and milestones

Assess risk treatment/issue action effectiveness

Define performance measures, baselines and targets to assess effectiveness

Source: Based on ISO 31000:2018 *Risk Management: Guidelines*.

7.1.2 Performance measures and targets support assessments of control, treatment and issue action effectiveness

Performance measures provide a clear basis for assessing whether controls, risk treatments and issue actions are achieving their intended outcomes. Performance measures are typically supported by:

- baselines that establish the current or expected level of performance
- targets that define the expected improvement or outcome.

Without defined performance measures, baselines and targets, it is difficult to determine whether controls, risk treatments and issue actions are effective or whether further intervention is needed. Examples of performance measures that could be used to assess the effectiveness of a risk treatment/control are shown in figure 7.2.

Figure 7.2: Examples of performance measures to assess effectiveness of a risk treatment/control

Risk

Delays in design review and approval may impact the project schedule.

Treatment/control

Develop and maintain a detailed design review and approval schedule that:

- sets out key review stages and approval time frames
- assigns responsibility for review and approval
- identifies key dependencies between design packages.

Performance measures

Percentage of design packages approved within scheduled time frames (target: >90%)

Number of overdue design reviews and approvals

Average duration of design review and approval compared to planned time frames

7.2 Findings and recommendations

7.2.1 Further detail needed in risk treatment and issue action plans to support effective oversight

Recommendation

DIT should strengthen risk treatment and issue action plans to:

- clearly describe how actions address underlying causes
- include milestones and performance measures
- provide sufficient detail to support effective monitoring and oversight.

Finding

Well-designed risk treatment and issue action plans are important to ensure that risks are actively reduced and issues are resolved as intended. Plans that have clear and specific actions, responsibilities, time frames and measurable outcomes support effective monitoring, review and assurance.

Risk treatment and issue action plans for both PDO-managed and Alliance-managed risks and issues need further detail to support effective oversight, as they do not consistently:

- explain how proposed actions address risk drivers and the underlying causes of risks and issues to reduce risk exposure or resolve issues
- define specific actions, with some actions framed as statements of intent rather than actionable steps
- include milestones or targets to support monitoring of implementation
- establish performance measures, baselines or target outcomes to assess their effectiveness.

In addition, risk treatment plans do not consistently address key elements of better practice, including:

- the rationale for selecting treatment options and their expected benefits
- resource requirements and contingencies
- constraints affecting implementation
- reporting and monitoring arrangements.[j]

These limitations reduce assurance that risk treatments and issue actions are appropriately designed and implemented to reduce risk exposure or resolve issues. This limits the ability of governance groups to effectively monitor progress and assess whether actions are achieving intended outcomes.

DIT's response

The Department acknowledges the recommendation.

Discussions with Audit Office have focused on significant risk treatment plans and significant issue action plans. The recommendation, as written, does not clearly articulate this important distinction or define the applicable threshold to which this recommendation applies.

The Department and the Alliance have established a structured and mature approach to the identification, development and implementation of risk treatments, and issue actions, embedded within its broader risk management and governance framework. The Department notes that risk treatments and issue actions are already included in the NSC PDO and Alliance managed risk and issues registers. The Department will continue to improve the clarity and consistency of how treatment and action information is summarised and communicated to governance bodies for significant risks and issues. The Department will also continue to work collaboratively with the Alliance to refine risk and issue action plans for significant risks and issues.

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[j] Better practice guidance is outlined in the Australian Standard ISO 31000:2018 *Risk management – Guidelines*.

7.2.2 DIT should strengthen documentation of the rationale and supporting evidence for assessments of risk control effectiveness

Recommendation

DIT should strengthen its approach to assessing and documenting risk control effectiveness by:

- ensuring assessments are supported by sufficient evidence and clearly documented rationale
- ensuring controls are reviewed regularly
- establishing performance measures and targets to support objective and consistent assessment.

Finding

DIT's enterprise risk management framework requires the effectiveness of risk controls to be evaluated, verified and evidenced. DIT advised us that the PDO Risk Management Team undertakes assurance activities to assess the effectiveness of PDO-managed risk controls through regular engagement with risk and mitigation owners, with commentary recorded in the PDO risk register.

Our review identified gaps in how the evaluation and verification of control effectiveness are evidenced and documented. In particular:

- statements about control effectiveness (for example, 'control is active and current' or 'implemented and operational') are recorded, but the basis for these conclusions is not clearly documented
- supporting evidence is not consistently identified or referenced
- while some controls have been recently assessed, several were flagged as requiring follow-up or have not been assessed since 2023 or earlier
- performance measures, baselines or targets are not defined to support the assessment of control effectiveness.

These gaps reduce transparency over how conclusions about control effectiveness are reached and limit assurance that controls are operating as intended. This may reduce confidence in risk ratings and increase the likelihood that control weaknesses are not identified or escalated in a timely manner.

DIT advised us that it is not practical to record every conversation on control effectiveness assessments, given the volume of reviews performed and comments made.

In our view, while it is not necessary to document every interaction, assessments should be supported by sufficient evidence and documented rationale to enable transparency over how conclusions are reached and to support assurance that controls are operating as intended.

DIT's response

The Department acknowledges the recommendation.

The Department has established an embedded and structured evidence-based approach to assessing the effectiveness of controls, treatments and actions associated risks.

This approach ensures that control effectiveness is actively monitored and updated, providing early visibility of emerging issues where controls may not be operating as intended and enabling timely intervention or escalation through established governance pathways. As reflected in the audit observations, effectiveness is regularly discussed with risk owners and captured as part of the risk management process.

The Department will continue to enhance the clarity and consistency of documentation for significant evidence-based controls and material risks.

Appendix 1 – Audit mandate, objective, criteria and scope

Our mandate

The performance audit was conducted under section 31(2) of the *Public Finance and Audit Act 1987*. This section allows the Auditor-General to examine the efficiency, economy and effectiveness with which a public authority uses its resources.

The performance audit is a reasonable assurance engagement which concludes on the effectiveness of an activity as evaluated against identified criteria. It was conducted in line with the Australian Standard on Assurance Engagements ASAE 3500 *Performance Engagements*.

Our objective

The objective of the performance audit was to assess whether DIT has effective arrangements for managing its risks and issues related to delivering the T2D project main works under the Project Alliance Agreement.

Our audit focused on risk and issue management for key areas such as project scope, scheduling, cost and quality. It covered the period from execution of the Project Alliance Agreement in September 2024 to March 2026.

What we reviewed and how

Audit sub-objective	Audit criteria
Has DIT established and implemented effective governance arrangements to manage its risks and issues for the T2D project main works?	Has DIT implemented effective risk and issue management plans that outline how it intends to identify, assess, prioritise and manage its project risks and issues? Has DIT defined and communicated clear roles, responsibilities and accountabilities for managing its project risks and issues? Has DIT established risk and issue registers for the T2D project main works, and are the registers reviewed and updated regularly for emerging risks and issues? Has DIT implemented an effective reporting framework to provide relevant, timely and accurate information on its project risks and issues to those charged with project governance?
Has DIT established and implemented effective arrangements to identify, analyse and evaluate risks and issues for the T2D project main works?	Has DIT defined its objectives and established the scope and context for its project risk and issue assessment? Has DIT implemented effective processes to identify project risks and issues? Has DIT implemented effective processes to analyse project risks and issues? Has DIT implemented effective processes to evaluate risks and issues and determine actions to be taken?

Audit sub-objective	Audit criteria
Has DIT implemented effective processes to treat risks and issues for the T2D project main works?	Has DIT developed treatment plans to mitigate significant project risks and issues? Does DIT have effective processes to ensure treatments for significant project risks and issues are effectively designed, and implemented? Has DIT implemented effective monitoring and review arrangements for risk and issue treatments?

We reviewed documents in detail and held discussions with DIT and Alliance staff.

What we did not review

The following are outside the scope of our performance audit:

- DIT's agency-wide risk management framework
- procurement of the T2D project main works
- development of the target outturn cost and activities leading to the execution of the Project Alliance Agreement
- the effectiveness of DIT's T2D project governance arrangements, aside from the governance arrangements specifically related to project risks and issue management
- the effectiveness of the project design review and certification process
- compliance with the Project Alliance Agreement.

Appendix 2 – Response from Department for Infrastructure and Transport

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Department for Infrastructure and Transport

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Mr Andrew Blaskett
Auditor-General
Audit Office of South Australia

Email: records@audit.sa.gov.au

Dear Mr Blaskett

REPORT OF THE AUDITOR-GENERAL: PERFORMANCE AUDIT ON NORTH-SOUTH CORRIDOR, RIVER TORRENS TO DARLINGTON (T2D) PROJECT

Thank you for your correspondence dated 31 July 2026, regarding the Auditor-General's Performance Audit on North-South Corridor, River Torrens to Darlington (T2D) Project.

I note the report's acknowledgement that the Department for Infrastructure and Transport (the Department) has established a structured, comprehensive and mature approach to managing risks and issues for the T2D Project, including a Project-specific Risk Management Plan, clearly defined governance arrangements, regular and structured reporting, and targeted processes for management of Project risks and issues.

These arrangements are central to the Department's oversight of the Project and provide a strong foundation for effective escalation, assurance and decision-making across the Project. The Department considers that its existing governance, risk management and assurance arrangements are appropriate for the T2D Project, while recognising that these arrangements will continue to evolve as the Project progresses.

The Department has reviewed the findings, observations and recommendations contained in the Performance Audit report. As reflected in the management responses provided during the audit process, the Department is committed to implementing actions that further strengthen aspects of its governance, assurance, reporting and risk and issue management arrangements.

Actions identified in response to the recommendations will be incorporated into the Project's governance and assurance framework and monitored through established governance processes.

I appreciate the work undertaken by Audit SA and the constructive engagement with Department for Infrastructure and Transport staff throughout the audit process.

Yours sincerely

Jon Whelan
Chief Executive

5 August 2026

Appendix 3 – T2D project: chronology of events

Date	Event
2019	
April	The Commonwealth and South Australian Governments jointly committed $5.4 billion for the River Torrens to Darlington section of the North-South Corridor.
2020	
August	Early works started.
November	Estimated project cost of $8.9 billion included in the 2020-21 State Budget.
2021	
June	Estimated project cost increased to $9.9 billion in the 2021-22 State Budget, reflecting an updated road layout which included wider tunnels to allow for three lanes.
November	The SA Government released the reference design.
2022	
February	The Commonwealth Government announced additional $2.26 billion project funding. Infrastructure Australia released its evaluation of the business case.
March	The SA Government requested DIT undertake a review of the project.
December	DIT's review of the project was completed and a revised new design was released for the project. $850 million of additional network and amenity upgrades along and around the final 10.5-kilometre section of the North-South Corridor were included in the project scope. The project budget increased by $5.45 billion to $15.4 billion in the 2022-23 mid-year budget review to reflect the updated design and construction changes. Project completion date revised from 2030 to 2031.
2023	
January	Registrations of interest for main works and maintenance and incident response were released.
February	Public consultation on the updated reference design closed.

Date	Event
April	Expressions of interest opened for main works and maintenance and incident response.
August	A request for proposal was released for main works and maintenance and incident response.
November	Public Works Committee recommended that proposed main works proceed. Commonwealth Government confirmed an additional $2.7 billion in project funding.
2024	
April	The request for proposal for main works and maintenance and incident response closed.
September	Award of Alliance contract for main works.
2025	
May	Main works construction commenced.
2026	
July	Excavation of the southern tunnels commenced.
Second half	Excavation of the northern tunnels planned to commence.
2031	
December	Estimated project completion.

Appendix 4 – Abbreviations and terms used in this report

Abbreviation/term	Description
Actual outturn cost	The actual cost for delivery of the Alliance works inclusive of the non-owner participants’ fee and reimbursable costs to the non-owner participants and the Principal.
Alliance contracting	Public sector agency (the owner) works collaboratively with private sector parties (non-owner participants) to deliver major capital projects.
Alliance-managed issue	An issue that arises from delivering the T2D project main works and is jointly managed by the Alliance participants, where the consequences are shared in accordance with risk sharing and pain/gain-share arrangements in the Project Alliance Agreement.
Alliance-managed risk	A risk that arises from delivering the T2D project main works and is jointly managed by the Alliance participants, where the consequences are shared in accordance with risk sharing and pain/gain-share arrangements in the Project Alliance Agreement.
DIT	Department for Infrastructure and Transport.
Excepted risk	A risk that is specifically excluded from the alliance risk-sharing arrangements and remains the responsibility of the Principal if it occurs.
Gain-share	The arrangement under the Project Alliance Agreement whereby the owner and non-owner participants share the financial rewards of project cost underruns relative to the target outturn cost. The non-owner participants’ financial rewards from any cost underruns are capped in accordance with the Project Alliance Agreement.
Issue	An event or condition that has occurred, is occurring or is imminent and is impacting, or is likely to impact, the achievement of objectives.
Issue management	The process of identifying, prioritising, managing and resolving events or conditions that have occurred or are occurring and affect the achievement of objectives.
Key performance indicator (KPI)	A measurable metric used to assess performance against a key result area.
Key result area (KRA)	A significant project outcome or performance area that is important to project success and against which alliance performance is assessed.

Abbreviation/term	Description
KRA performance adjustment	A financial adjustment made under the alliance risk/reward regime based on the Alliance’s performance against the key result areas.
Minimum conditions of satisfaction (MCOS)	The minimum level of performance that the Alliance must achieve for a particular key performance indicator.
Non-owner participants (NOPs)	All the participants to the Alliance excluding the owner.
NOP fees	The agreed profit margin and contribution towards the recovery of non-project specific corporate overhead costs for non-owner participants.
Owner	The government agency responsible for the delivery of the investment objectives set out on the business case for the project.
Owner participant	Commissioner of Highways (Chief Executive of DIT).
Pain-share	The arrangement under the Project Alliance Agreement whereby the owner and non-owner participants share the financial consequences of project cost overruns relative to the target outturn cost. The non-owner participants’ financial exposure to cost overruns is capped in accordance with the Project Alliance Agreement.
PDO	DIT’s Program Delivery Office.
PDO-managed issue	An issue arising from delivery of the T2D project that is managed by DIT’s Program Delivery Office on behalf of DIT.
PDO-managed risk	A risk arising from delivery of the T2D project that is managed by DIT’s Program Delivery Office on behalf of DIT.
Principal	The Commissioner of Highways, as the party to the Project Alliance Agreement responsible for funding, overseeing and accepting delivery of the project.
Principal’s representative	The person appointed to represent the Principal and exercise delegated powers under the Project Alliance Agreement.
Project Alliance Agreement	The contractual agreement of the Alliance.
Reimbursable costs	Direct project costs and indirect overhead costs that are specific to the project and are reasonably incurred by the Alliance participants in performing the work.
Residual risk level	The level of risk remaining after controls and treatments have been applied.

Abbreviation/term	Description
Risk	The effect of uncertainty on objectives. Risk refers to the possibility that an event or condition will occur that may positively or negatively affect the achievement of objectives.
Risk appetite	The amount and type of risk that DIT is willing to pursue or accept.
Risk management	The systematic process of identifying, analysing, evaluating and treating potential events or conditions that could affect the achievement of objectives.
Risk or reward amount	A performance-based payment to the non-owner participants that may be positive or negative and is determined by comparing actual and target performance in both cost and non-cost areas.
Risk tolerance	The maximum level of residual risk that DIT is willing to accept for a particular risk before further treatment, escalation or formal acceptance is required.
Target risk level	The level of risk the project aims to achieve and is willing to accept.
Target outturn cost	The estimated cost of designing and constructing the assets. It comprises the pre-estimate of reimbursable costs, corporate overheads, profit, risk and contingency.
TBM	Tunnel boring machine.
T2D Alliance	The Alliance.
T2D project	River Torrens to Darlington project.

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