Section 4: Taking action

Chapters 11 to 14

January 2018

Contents

Section 4: Summary

This section of the business case recommends actions that need to be taken to deliver the North East Link Project.

Chapter 11 recommends a reference packaging and procurement solution for North East Link, informed by market sounding and a detailed evaluation of potential options. The reference solution aims to maximise competition and market capacity and capability by optimising the size of construction packages while managing interface risk and maximising whole of life considerations through alignment of construction and operation responsibility. As the most significant technical risk associated with the project is geotechnical and tunnelling risk, the Reference Packaging Solution is:

- A Primary Package consisting of the middle section of North East Link (including the tunnelled section) will be procured as an Availability PPP and designed and constructed (D&C), operated and maintained (O&M) by a single private sector operator. *Redacted – commercial-in-confidence*

- One or two Secondary Packages for the sections of the road at the ends of the link, potentially procured with a separate private sector party (or parties) as the D&C contractor(s). *Redacted – commercial-in-confidence.* The scope of the Secondary Package(s) will be identified following the development of the commercial framework for the project, and are currently assumed to be works that are returned to the State for operations and maintenance, however this will be further tested with the market.

The road will be subject to a tolling regime. A separate State-owned entity (State Toll Co) will collect toll revenue, as well as ongoing maintenance of tolling-related infrastructure. Creating this entity means the State can consider monetisation/divestment options in the future, once toll revenues have matured. A preliminary scoping analysis has been conducted to determine how best to align the incentives and interests of an Availability PPP contractor (PPP Co) with the State's – noting that more traffic means more revenue for the State, but additional operational and maintenance costs for the PPP Co. NELA will continue to explore and develop these options ahead of procurement.

Chapter 12 reports the results of the analysis of indicative budget impacts associated with the project. To address the balance sheet constraints of potential operators identified during the market sounding, DTF and NELA have determined that the Availability PPP for the Primary Package will benefit from State funding contributions. This is consistent with recent Victorian PPP projects. In considering the timing and quantum of funding contributions, the State will seek to balance a reduction in the private financing costs of the contractor with maintaining sufficient private capital at risk to absorb O&M risk and provide performance incentives.

The budget and accounting analysis assumes State capital contributions.

Redacted – commercial-in-confidence

Further consideration with regard to the quantum, timing and structure of State funding contributions will be undertaken in the next stage of the North East Link Project's development.

Chapter 12 provides financial tables showing the project's impacts on the State's balance sheet and operating statement under both the current accounting framework and the new Australian Accounting Standard AASB 1059 *Service Concession Arrangements: Grantors* (AASB 1059) issued in July 2017.

The North East Link Project has several defining characteristics that influence its risk profile:

- The project will have a significant tunnelling component, which introduces geotechnical and construction risks.
- The project will have a very high capital cost, due in part to the tunnelling component, which increases the magnitude of construction risk and introduces risk associated with market capacity and financing of the project.
- *Redacted – commercial-in-confidence*

- The project alignment has elements of both brownfield and greenfield development, which elevates risks around environmental approvals and community/stakeholder concerns with the project.

Key project risks have been identified and quantified through a comprehensive structured risk assessment process based on the North East Link Concept Design (outlined in Chapter 6). Significant categories of risk are set out in the table below.

Key project risks for North East Link

Category	Potential risk
Land acquisition	Due to the size of the project and length of the preferred alignment, the project will require significant land acquisition. The project is expected to run through greenfield and developed areas, which introduces complexity and cost variability in the land acquisition process. There is a risk that forecast land acquisition-related costs are higher than anticipated and / or project timelines in relation to land acquisition agreed to at financial close cannot be met.
Planning and environmental approvals	Due to the greenfield nature of the project, there are risks associated with gaining the required planning and environmental approvals within the required timeframe.
Community and stakeholder impact risks	Due to the greenfield nature of the project and existing environmental, residential and commercial land uses, there is a risk of community and stakeholder opposition to the project. This may lead to additional communications resources being required and delays to project timelines.
Market capacity and competition risk	Due to the number of major projects in the current infrastructure pipeline, the market's capacity for a project of this size is likely to be more restricted. There is a risk of insufficient resources being available in the market to adequately support the project.
Scope specification risk	Due to the size and complexity of the project, there is an increased chance of scope requirements not being met.
Industrial relations risk	The potential for industrial action (which may be due to an act or omission by contractor) is a key risk in large scale construction projects, potentially affecting labour costs and productivity.
Interface risk	The project's complex interfaces with the M80 and the Eastern Freeway present key risks that could cause unexpected project costs and delays.
Design development risk	Due to the size and complexity of the project, there is an increased chance of scope changes and cost increases during the project's detailed design phase.
TBM failure risk	The TBM is a key piece of equipment during the project's construction and may be impacted by unfavourable geotechnical conditions expected within the project alignment.
Change in law risk	Given the long concession period of the project, a change in law may impact O&M costs.
Latent defect risk	Due to the complexity and high capital cost of the tunnel and viaduct structures, the risk of latent defects is enhanced.

Category	Potential risk
Traffic risk	O&M costs have been developed based on traffic forecasting. These costs may increase if traffic levels are higher than anticipated. The design and cost of noise barriers are based on traffic forecasts. These costs may increase if traffic levels or vehicle mix differ to those anticipated at financial close.
Toll revenue risk	There is a risk of inaccuracies in forecasting traffic volumes and the risk that underlying assumptions regarding future macro-economic factors that support the long-term traffic growth forecasts are inaccurate.

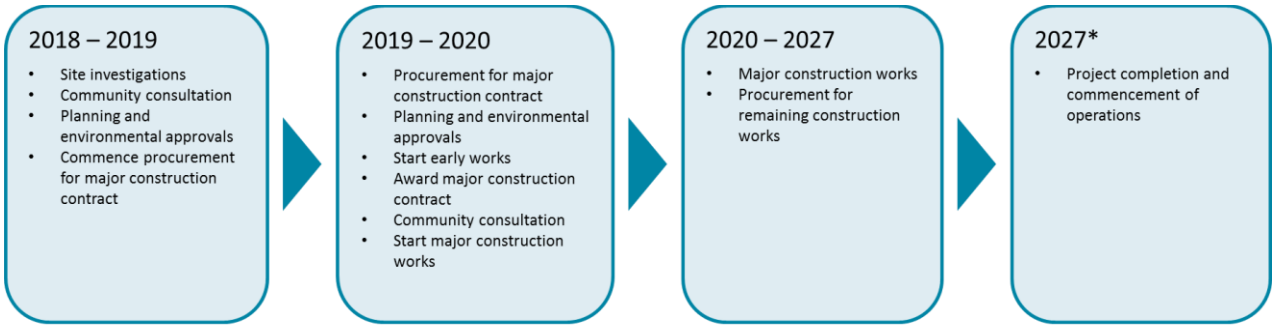
The next phase of work related to project risks will include finalisation of risk allocation between the State and the private sector (following further market sounding and determination of a final procurement model) and development of a detailed management plan for risks retained by the State.

Chapter 14 sets out the deliverability and implementation plan for North East Link, including:

- *Governance arrangements for the project* – These arrangements, which incorporate oversight by the Victorian Coordinator-General, are designed to deliver the project using best practice across technical disciplines, make project delivery clearly accountable to government and provide robust oversight and stewardship of the project.
- *Stakeholder engagement and communications* – NELA recognises that public participation is essential for achieving high quality outcomes across all phases of the project. A Communications and Engagement Strategy has been developed for North East Link that extends from the corridor options assessment phase across the Environment Effects Statement process and through procurement.
- *Statutory approvals pathway* – A submission will be made to the Minister for Planning to seek declaration of the project as 'public works' under the *Environment Effects Act 1978*. If a declaration is made, an Environment Effects Statement (EES) must be prepared. An EES, followed by a Planning Scheme Amendment (PSA) under the *Planning and Environment Act 1987*, is the recommended assessment and approval pathway for North East Link.
- *Delivery of the project* – Assuming an EES is required, a request will be made to the Premier for declaration of North East Link under the *Major Transport Projects Facilitation Act 2009*. The project can then use the Act's streamlined delivery provisions, including those covering land acquisition and temporary access to or occupation of land. Compensation for parties with an interest in land required for the project would be provided under the provisions of the *Land Acquisition and Compensation Act 1986*.
- *Readiness and next steps* – Tasks that will be undertaken to progress the project to the next stage include further technical investigations and environmental assessments, exploration of potential early works and complementary projects, development of a Reference Design and preparation work for land acquisition, the EES process and procurement. Additional analysis will also be conducted to fully understand the project's impacts on the arterial road network and to confirm complementary projects and network upgrades/changes that should be implemented to maximise desirable outcomes across the metropolitan transport network.

An indicative timeline has been established to take the project from business case to construction commencement. Key milestones are listed in the following table.

Key project milestones



*Dependent on planning approvals and final delivery strategy

11 Procurement

This chapter identifies and assesses a range of packaging and procurement options with the objective of selecting a preferred option for delivering the North East Link Project. Packaging refers to the elements of the project scope that are to be 'packaged' or bundled together in one contractual framework. Procurement refers to the potential contractual models that can be used to engage the private sector in the project.

11.1 Background

The approach used to assess procurement options for the North East Link Project is consistent with DTF's Procurement Strategy Guidelines and Infrastructure Australia's National Public Private Partnership Policy and Guidelines.

11.1.1 Approach to assessing procurement options

The following objectives were used as the basis for selecting the most appropriate procurement options for the project:

- Optimise market participation and maximise competition to drive value for money
- Optimise transport network integration by being able to accommodate future changes in technology, the transport network and operating policies
- Maximise budget certainty to the State
- Optimise the management, allocation and pricing of risk between all parties to the project
- Meet the State's timeframes for delivery of the project
- Maximise the operational performance of North East Link.

A tailored approach (aligned to the DTF and Infrastructure Australia guidelines) was developed to identify the procurement criteria that would lead to the recommended procurement model.

The procurement options assessment was also informed by the industry, via the market sounding process. The primary focus of this market sounding was on gathering feedback to inform the packaging and procurement of the project.

11.1.2 Key assumptions for the procurement analysis

The following key assumptions have informed the procurement analysis:

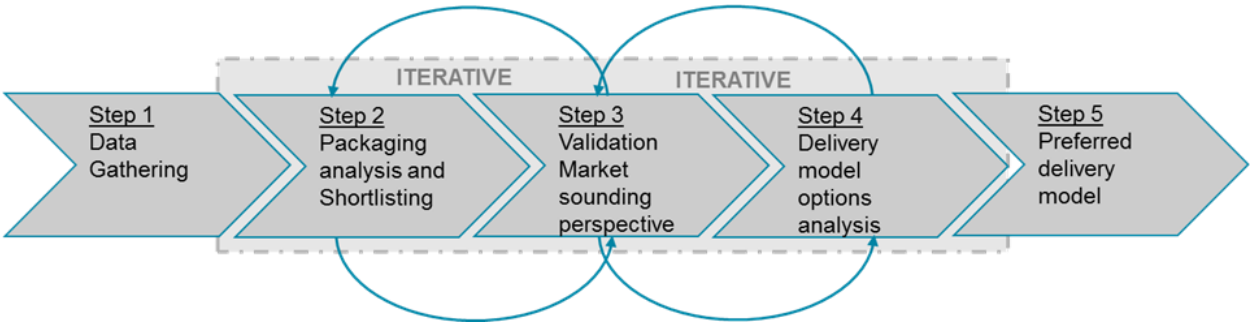
- *Redacted – commercial-in-confidence,* the project is a significant transport project that is larger in scale than the market may be comfortable in delivering as a whole.
- The key technical risk facing the project is geotechnical and tunnelling risk through some of Melbourne's most diverse geological conditions. All tunnelling projects delivered in Australia in recent times have sought to allocate the design, construction and operations risk associated with the tunnel to the private sector as the party best able to manage this risk.
- The road will be tolled. The State should consider how to derive best value from the toll revenue stream.

- Victoria's two current toll roads (CityLink and EastLink) are privately financed Economic PPP toll roads, where the private sector has bid for greenfield toll revenues and takes toll revenue risk / reward. Peninsula Link was delivered under an Availability PPP structure. East West Link was planned to be delivered via an Availability PPP structure with a State-owned toll entity. Despite the success of Victoria's two toll roads, there have been several high profile financial failures of traditional toll road projects in recent years, including the Cross City Tunnel and Lane Cove Tunnel in Sydney and Clem7 and Airport Link in Brisbane.
- Following these failures and the Global Financial Crisis (GFC), the market appetite for bidding for greenfield toll revenues as part of a PPP was significantly reduced. However, the preliminary market sounding undertaken for the project has shown that the appetite for toll revenues as part of a PPP has increased (from post-GFC levels), but remains limited to a few established toll road investors/operators.
- Accordingly, the procurement options considered for the project have been developed in the context of a PPP market with a much more limited appetite for greenfield toll revenues than it has had historically.

11.2 Overview of the packaging and procurement options assessment framework

Figure 11-1 shows the five-step process that was followed in accordance with the DTF and Infrastructure Australia procurement guidelines to identify and assess likely packaging and procurement options.

Figure 11-1 Methodology for developing preferred packaging and procurement delivery model



11.3 Data gathering (Step 1)

NELA gathered and considered key data relevant to the packaging and procurement assessment, including:

- Project Objectives
- Project characteristics
- Key project risks
- Market perspectives
- Cost analysis and funding.

Further details on data gathering are provided in Appendix S.

11.4 Packaging options assessment (Step 2)

Packaging is an important element of the procurement strategy as it determines how the overall scope of the project is best 'packaged' together. Once appropriate packages have been determined, it is possible to undertake further market sounding to inform a final packaging solution that provides for adequate competition and appropriate incentives, and determine the scope, incentives and interface points of an optimal packaging and procurement approach.

As shown in Figure 11-1, the development of a packaging and procurement strategy is an iterative process in which options are refined and tested as the process advances. A Reference Packaging Solution has been identified to provide the basis for the procurement options assessment and for further testing with the market in the next phase of the market sounding process. A four-phase methodology was used to determine the Reference Packaging Solution:

- **Phase 1**: Identify value drivers in how the project is packaged and presented to market, including which drivers achieve value for money.
- **Phase 2**: Define project scope elements that, built together, form North East Link between the M80/Plenty Road interchange and Eastern Freeway. The project scope elements are then used as the basis of the packaging assessment.
- **Phase 3**: Identify package options based on scope features, risks, interfaces and value drivers that provide sensible and deliverable packaging solutions, and that can be compared against one another.
- **Phase 4**: Conduct a packaging assessment against the value drivers to assess how each of the packaging options has the ability to deliver value for money and address risk in the delivery of the project.

11.4.1 Phase 1: Identify value drivers

The value drivers outlined in Table 11-1 were developed to support the assessment and comparison of packaging options. They represent potential package features that may drive strong outcomes against the procurement objectives.

In contemplating these value drivers and the key considerations for packaging, there are two overarching characteristics that will drive packaging solutions but that are in tension:

- Greater competition should achieve better value for money, but
- A single or fewer packages better mitigates interface risk and achieves an integrated and innovative solution in the construction and operation of the link.

Table 11-1 Packaging assessment criteria

Overarching characteristic	Value drivers	Description
Maximise competition	Size and scale	The extent to which the package is of sufficient value to be attractive to the market and provide opportunities for economies of scale – aiming to reduce design and construction cost and reduce industry bid costs
	Market capacity	The extent to which the scale of the project may limit the market's ability to provide a competitive process and therefore deliver a competitive outcome
	Risk profile	The extent to which the proposed packaging solution supports an optimum risk transfer
Manage interface risk	Deliverability	The extent to which packaging considerations would support the required project timetable
	Geography	The extent to which elements are located to provide efficiency or synergy (for example, in delivery)
	Functional interdependence	The extent to which elements of the project have inherent functional interdependencies that need to be managed through construction and operations, therefore limiting packaging consideration without introducing major interface risk.
	Innovation	The extent to which the packaging approach creates or reduces opportunities for innovation in design (for example, in the design of interchanges and collector-distributor roads), construction (such as techniques adopted), whole-of-life focus (such as use of sustainable materials) and consideration of future technologies (such as autonomous vehicles)
	Operations	The extent to which the operating performance of the project's assets comprising the package is comparable
	Technical requirements	The extent to which the elements of the project have similar or consistent technical / skills / capabilities requirements that would provide value in keeping together or risk in splitting them apart
Other considerations	Independent project benefits	The extent to which elements of the works can achieve project benefits (such as improved access outcomes) independently and could be delivered on a 'stand-alone' basis

11.4.2 Phase 2: Define project scope elements

The overall scope of North East Link is presented in Figure 11-2, showing the geographical location, interchanges with the existing road network and potential work type along the length of the route.

Figure 11-2 North East Link Project Scope

Key considerations in identifying packaging solutions for the project included:

- There are five interchanges where the project connects to the existing road network. Each interchange is a key design and construction control, as they govern the vertical and horizontal design for the rest of the project. Separating these interchanges into different packages could potentially limit opportunities for innovation in an integrated functional design solution for the whole link.
- Given their proximity to the potential tunnel portals, the design at the interchanges of Lower Plenty Road and Manningham Road are key controls in setting tunnel portal locations.

- The transition from an anticipated Tunnel Boring Machine (TBM) based tunnel construction to cut and cover or mined tunnel is a key design and construction control as it governs the depth and grade of the road at these locations and requires a significantly different construction technique.
- The transition from tunnel to surface road, cutting or viaduct is also a key design and construction control; while a minimum tunnel length has been determined to mitigate impacts on environmentally sensitive areas, further design and investigation work is required to determine an optimal tunnel length that minimises community impacts and responds to constructability considerations.
- Ability to locate tunnel launch sites and spoil haulage routes for tunnelling operations is a key construction control.
- The market sounding undertaken for the project identified that a design and construction package *Redacted – commercial-in-confidence* is likely to stretch the limit of the construction contracting market and will require the formation of joint ventures of more than two constructors. This inevitably introduces greater commercial complexity for the State and raises potential issues in realising security for a package of this size.
- The critical path for delivery of the project flows through planning and environmental approvals, land acquisition and tunnel construction.
- The development of the Reference Design and the planning and environmental approvals process are likely to result in changes to the North East Link Concept Design prepared for the business case.
- Given the stage of the current Concept Design and the challenges in optimising the ultimate design to minimise impacts on communities and meet the operational requirements of a rapidly changing transport future, an innovative, end-to-end functional design solution is critical to achieving the Project Objectives, minimising impacts and optimising the operational performance of the link.

The project scope was separated into seven discrete scope elements with interfaces at key interchanges or changes of work type as shown in Table 11-2. Indicative estimated costs for each scope element can be found in Appendix S.

Table 11-2 Project scope elements

Project scope element	Description
Scope element 1 Plenty Road (M80 Ring Road) to Lower Plenty Road (including Watsonia Station)	Works within the M80 to Watsonia Station section of the project would include widening of the M80 Ring Road from Plenty Road to the Greensborough Bypass, and provision of a new interchange at the existing Greensborough Bypass, providing connectivity to and from North East Link in all directions. Minor works would occur on the existing Greensborough Bypass through to Diamond Creek Road and may include bridge strengthening at the Plenty River bridge. South of the M80 and extending to Watsonia Station, the existing Greensborough Bypass would be upgraded to become North East Link. Separate roads would be provided to the east (generally southbound) and west (generally northbound) of North East Link, providing local connectivity to and from the M80, Greensborough Bypass, North East Link, Grimshaw Street, Watsonia Station, Greensborough Road and selected local roads. An interchange at Grimshaw Street would provide connectivity to and from North East Link in all directions. It would also include improvements to incorporate bus priority and shared use paths.

Project scope element	Description
Scope element 2 Tunnels (TBM) through to Manningham Road interchange	South of Watsonia Station, North East Link would diverge immediately to the east of the existing Greensborough Bypass and would likely dive down into a cutting. To maintain connectivity of the local road network, bridges would be provided across the cutting at various locations. The northern tunnel portal would likely be in the vicinity of Erskine Road and Coleen Street, and the driven tunnels would likely start just north of Lower Plenty Road. An interchange at Lower Plenty Road would provide connectivity to and from North East Link in all directions. Existing connectivity between Greensborough Highway and Lower Plenty Road would be maintained. Between Lower Plenty Road and Manningham Road, North East Link would include twin three lane bored tunnels running generally in a north-south orientation. The tunnels would travel under the residential area to the south of Lower Plenty Road, Banyule Flats, the Yarra River, Yarra Valley Country Club and Banksia Park. At the tunnel portal, supporting tunnel infrastructure would be required, including ventilation structures, water treatment plants, deluge tanks, substations and associated infrastructure.
Scope element 3 Mined tunnel and Cut & Cover to Southern Portals at Bulleen Road	From the underground Manningham Road interchange to the southern tunnel portals, the tunnels would likely be mined and Cut & Cover.
Scope element 4 Southern Tunnel Portal at Bulleen Road to Burke Road (to West) and Elgar Road (to East):	Interfacing at the Southern Portal at Bulleen Road, North East Link would likely rise to viaduct structures connecting with the Eastern Freeway. A series of new lanes (including collector distributors will extend to Burke Road (to the west) and Elgar Road (to the east).
Scope element 5 Burke Road to Elgar Road (Eastern Freeway Widening)	North East Link would provide new dedicated bus lanes along the Eastern Freeway, from the Burke Road to Elgar Road, creating an uninterrupted path for bus services travelling between the eastern suburbs and the central city. At the new Bullen Road/Eastern Freeway interchange, the dedicated bus lanes would pass under the North East Link ramps and travel along the northern side of the Eastern Freeway through to Doncaster Road. Accommodating the new bus lanes along the Eastern Freeway would require a new bridge structure over Merri Creek within the central median. The Eastern Freeway would be widened between Burke Road and Elgar Road. The widening would consist of an additional one to four lanes in various locations. Widening would likely take place on both sides of the freeway and in the median. Widening is likely to occur at-grade for the most part, although reconstruction of a number of bridge structures would likely be required. The widening works may also involve covering parts of Koonung Creek with new structures and/or converting sections of the existing open creek to culverts.
Scope element 6 Elgar Road to Springvale Road (Eastern Freeway Widening)	The Eastern Freeway would be widened from around Elgar Road in the west to Springvale Road in the east. The widening would consist of an additional one to four lanes in various locations. Widening would likely take place on both sides of the freeway and in the median. North East Link would provide new dedicated bus lanes along the Eastern Freeway, creating an uninterrupted path for bus services travelling between the eastern suburbs and the central city.

Project scope element	Description
Scope element 7 Burke Road to Hoddle Street (Eastern Freeway Widening)	From Hoddle Street, dedicated bus lanes would be provided in the existing shoulders of the Eastern Freeway in both directions until west of Chandler Highway, where the inbound busway lane shifts to the northern side of the Eastern Freeway. At the Chandler Highway interchange, the outbound busway lane passes under the exit ramp and then both inbound and outbound lanes pass under the Chandler Highway to the northern side of the Eastern Freeway. The Eastern Freeway would be widened from around Chandler Highway in the west to Burke Road in the east. The widening would consist of an additional one to four lanes in various locations. Widening would likely take place on both sides of the freeway and in the median.

Note: The project scope elements are based on the Corridor Concept developed for the purposes of informing the business case. Should the project proceed past the business case stage, the State will undertake more exhaustive consideration of all elements in refining the project scope and developing a Reference Design. This will potentially involve further evaluation of design options and construction methods to inform the project approvals.

Tolling systems

The tolling systems (tolling equipment and software) for North East Link will be directly influenced by the procurement model chosen and is not part of the packaging analysis. A more detailed discussion of tolling systems procurement is outlined in section 11.9.

Intelligent Transport Systems (ITS)

The project end-to-end ITS commissioning for North East Link will be required to be undertaken by one party. ITS assets and the underlying telecommunications infrastructure supporting them operate in an integrated manner across the network. Therefore, these assets are expected to be operated, managed and maintained centrally by one party, while the civil infrastructure can be delivered separately, depending on the packaging scenario selected.

Critically interdependent and complementary projects

As described in Chapter 6, the project scope incorporates:

- Implementation of Doncaster Busway as a critically interdependent part of the project
- Shared use paths running north-south along North East Link between the Eastern Freeway and the M80 and east-west along the Eastern Freeway between Hoddle Street and Bulleen Road. These paths are complementary projects incorporated within each of the geographic scope elements listed in Table 11-2.

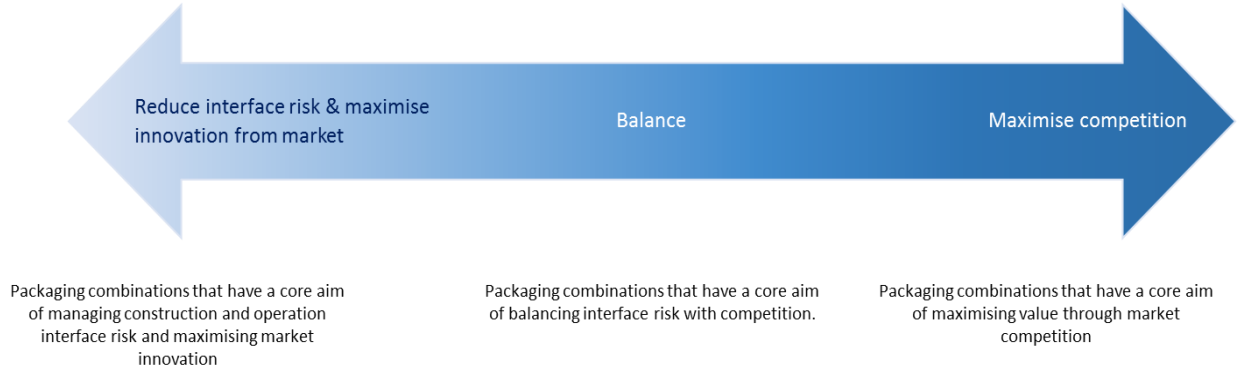
Portions of some project scope elements could potentially be delivered as early works package(s); however, this is not considered as part of this assessment and will be further explored during development of the Reference Design.

11.4.3 Phase 3: Identify package options

A variety of factors influence how the project scope elements could be packaged to maximise value to the State, including the value drivers identified. As noted previously, there are two overarching characteristics that are in tension; maximising competition and management of interface risk. Fully satisfying one characteristic requires trade-offs to support the other.

In determining appropriate packaging solution options, these two overarching characteristics were used to identify a range of potential package solution combinations along a continuum, as illustrated in Figure 11-3.

Figure 11-3 The continuum of overarching characteristics



This has resulted in three groupings of package solution options, as summarised in Table 11-3. Each of these solutions includes a 'Primary Package' that includes the tunnelling works and that, depending on the procurement solution, can potentially incorporate a longer-term operational role.

Where a packaging solution option involves more than one package, potential interface points have been selected based on an assessment of constructability at this point in the project's design development. This has resulted in a number of potential package combinations within each option that are representative of the types of packaging limits that could be applied to the current Concept Design.

Further detail on the potential package combinations is provided in Appendix S.

Table 11-3 Packaging solution description

Packaging solution	Description
Option 1	The aim of this packaging solution option is to reduce interface risk both in construction and operations and to maximise innovation from the market in tendering an end-to-end functional solution. This type of package solution option generally features one large scale integrated package, with the potential for some other packages at the margins where interface and innovation are of lesser consideration.
Option 2	The objective of package solution option 2 is to create a balance between maximising competition and market capacity and capability through optimising size and scale, while managing interface risk and optimising interfaces for construction and operation. The general features of this type of package solution option are two to three medium to larger scale packages, comprising a Primary Package and Secondary Package(s). Key issues in identifying packaging solutions in this option are the ability to create packages of an appropriate scale, given the key design and construction controls. Depending on the final design solution, this option may result in packages that are still considered too large to attract a competitive field of tenderers or packages that introduce significant interface risk or that reduce opportunities for innovation from the market.

Packaging solution	Description
Option 3	This package solution option aims to maximise competition to encourage a broad range of participants from the local and international market to ensure value for money to the State. The general features of this type of package solution are several optimally sized packages that are attractive to a broad range of potential bidders.

11.4.4 Phase 4 Packaging options assessment

Each packaging solution option was assessed against the packaging value drivers to assess its ability to provide value for money to the State. The assessment for each option is summarised in Table 11-4.

Table 11-4 Packaging assessment summary

Packaging solution	Summary
Option 1	Packaging option 1 performs most strongly in relation to minimisation of interface risk and potential for innovation in an integrated functional design solution. However, the key trade-offs of this are likely to be: • Reduced competition, including the potential to limit participation from international entrants • Potential to limit the ability of the market to provide security for the package size, with consequent limitations on the risk allocation that may be desirable to the State. Key risks for this option: • Given the current market environment and level of activity, a potential outcome could include not being able to field enough quality entrants for a competitive tender process. • In moving forward with this option, the consequences of poor market involvement or unacceptable limitations on risk allocation may not be apparent until the market is formally engaged in a tender process, resulting in cost, time and reputational impacts for the project.
Option 2	Packaging option 2 provides a balanced performance in relation to market competition and interface risk. However, the key trade-offs for this are likely to be: • Increased interface risk; both in construction and for operations associated with a potential longer-term PPP solution • Impacts on the timing and magnitude of any required up-front capital contribution • Increased requirement for pre-tender innovation and detail in the design of the link (or risk loss of overall innovation). Key risks for this option: • the ultimate design solution may result in interface locations that do not reduce the size of the packages sufficiently to reduce fully the risk of the Primary Package being too large. • the market either pushes back on the State's desired risk allocation in terms of the interfaces or includes significant risk pricing for these interfaces.

Packaging solution	Summary
Option 3	Packaging option 3 performs most strongly in relation to competition, market capacity and capability. However, the key trade-offs for this competition are likely to be: • Increased interface risk; both in construction and for operations associated with a potential longer-term PPP solution • Impacts on the timing and magnitude of any required up-front capital contribution • Increased requirement for strong state-side management and resources • Increased requirement for pre-tender innovation and detail in the design of the link (or risk loss of overall innovation). Key risks for this option: • There may be a reduction in the ability of the State to achieve its desired risk allocation. • Given the nature of the project and the design and construction controls identified, it may not be possible to break the packages into the size limits sought without introducing unmanageable interface risks.

11.4.5 Recommended packaging solution

Ultimately, considering the current market environment and project requirements, NELA identified that the ability to achieve improved value for money through a competitive market process is anticipated to outweigh the potential risk associated with packaging the project scope elements into either larger or smaller sized packages. This consideration is not unusual on major transport projects of this size where the alignment of package size with market capability and mitigation of the risk of not achieving a competitive market process are features. These projects include Melbourne's Metro Tunnel rail project, Sydney Metro Project, WestConnex and international projects such as London Cross Rail.

As discussed in section 11.4, a Reference Packaging Solution will form the basis of the procurement model analysis and delivery framework. This solution will be developed further, including testing with the market to investigate its ability to attract market competition and explore further the interface risks and potential mitigations associated with this option.

Based on the packaging assessment, it is recommended that **packaging solution option 2** be adopted as the Reference Packaging Solution.

Further scope refinement will be undertaken to determine the preferred package solution to be taken to market for procurement. This refinement will include consideration of the Reference Design prepared for the planning and environmental approvals process and testing with the market in the next stage of market sounding.

11.5 Procurement options assessment and market validation (Steps 3 and 4)

The selection of the most appropriate procurement delivery model is fundamental to the success of a project. A procurement analysis must identify the key criteria that provide the balance between maximising project benefits and minimising risk in delivery.

Consistent with the DTF Procurement Strategy Guidelines, steps 3 and 4 consider suitable delivery models, review the market appetite and capability for the project, and undertake an analysis of procurement options for delivery of the project.

For this process, a four phase process was used to identify the most appropriate delivery framework for the project:

- **Phase 1 Identification of procurement options assessment criteria** that considers how successfully each delivery option can maximise the benefits of the project and minimise the risk in delivery, including consideration of an appropriate allocation of risk. The procurement options assessment criteria are weighted in order of their importance and are used to support the assessment and comparison of the procurement options.
- **Phase 2 Consideration of toll revenue allocation**: The North East Link Project is identified as a toll road. This involves the creation of an 'asset' in the toll revenue stream. A commercial aspect of the project that must be assessed up-front is consideration of how this 'asset' can provide the best value to the State. Whether the toll revenue and associated risk in achieving that revenue is allocated to the private sector or retained by the State is a key driver in selection of the most appropriate procurement model to deliver the project.
- **Phase 3 Assessment of market sounding**: A sound understanding of the appetite and capability of the market is a critical element of the assessment of procurement options. This phase considers the feedback from the preliminary market sounding undertaken for the project and identifies how this feedback informs the assessment of the procurement options.
- **Phase 4 Procurement options assessment** involves identification of potential procurement options, taking into account the toll revenue allocation outcomes, Reference Packaging Solution and key risks and characteristics for the project. These procurement options are then evaluated against the assessment criteria to select the most appropriate delivery model for the project.

11.5.1 Procurement options assessment criteria

Table 11 5 presents the procurement options assessment criteria and weightings developed by NELA's Commercial and Legal Working Group.

Table 11-5 Procurement options assessment criteria

Evaluation criteria	Description	Relative weighting
Maximise market interest	The extent to which a procurement option assists in maximising market interest among appropriate market participants with the relevant skills, expertise and capacity (and therefore drive a competitive process and optimal value for money outcomes for the State)	High
Transport network integration	The extent to which a procurement option allows for sufficient flexibility to: • Manage the project assets as part of the existing transport network (including flexibility to implement operational changes to the network over time) • Optimise the technical scope of the project and future connectivity • Accommodate the technical requirements of other transport projects as required.	High
Price and budget certainty	The extent to which a procurement option allows the State to confidently predict its financial contribution to the project (that is, certainty around capital costs / operating and maintenance expenditure associated with the project assets / quantum of public funding where required) and support competitive pricing	High

Evaluation criteria	Description	Relative weighting
Risk management	The extent to which a procurement option manages risk across the project's lifecycle (design, construction, financing, operations, maintenance and revenue) via an effective and efficient risk allocation to the parties best able to manage and price risk	High
Innovation	The extent to which a procurement option provides incentives for the private sector to introduce new ideas and approaches over the whole of the life of the project that meet the performance expectations and generate additional value to the State and users (through cost savings, optimising toll revenues, additional sources of revenues, enhanced user experience, innovative technical solutions) and meet the project's Guiding Principles (including minimising impacts on communities, environmental and cultural assets and optimising the use of resources)	Moderate
Time	The extent to which the procurement model allows the Project to be delivered early to enable benefits realisation and efficient funding; and the extent to which the procurement model is able to support achieving an optimum time certainty for the State in relation to construction completion and commencement of operations.	High
Operational performance	The extent to which a procurement option drives operational performance via incentives and risk allocation	Moderate
Simplicity	The degree to which an option helps to minimise the need to implement overly complex and/or unprecedented (domestic or international) commercial structures and the extent to which it allows for genuine transparency over the true cost of the bid and fair comparison of bidder proposals	Moderate

11.5.2 Toll revenues

It should be noted that toll revenues are not relevant to the economic cost benefit analysis of a toll road. The economic benefits that justify investing in a road, tolled or free, include travel time, safety and vehicle operating cost savings. Tolling has an indirect impact on an economic evaluation through the tolls' impact on traffic volumes, which flows through to travel time and other savings.

A road can be paid for by users or taxpayers or both. In economic terms, tolls are a form of 'transfer' between road users and taxpayers who would have otherwise funded the road.

Two risk factors when a road is tolled are:

- **Economic benefits realisation risk** – lower (higher) traffic volumes imply lower (higher) than expected **economic** benefits being realised
- **Financial risk** – in the context of a State-owned toll entity, lower (higher) toll revenues mean lower (higher) share of 'user pays' and conversely higher (lower) than expected taxpayer funding of the road.[1]

Economic risk exists for tolled and free roads. Financial risk is a unique feature of toll roads.

As identified in section 11.5, the toll revenue stream creates a valuable financial asset for the State, a key consideration of which is how to derive the best value for this asset.

[1] In an Economic PPP, the toll revenues are sold up front. The State receives a certain value and the Economic PPP Co then bears the financial risks and rewards of tolls being less (or more) than expected. The structure effectively locks in the relevant taxpayer benefit or exposure when the revenue is sold.

This section analyses different models for the State to sell the toll revenue stream to the private sector as part of an Economic PPP. It analyses, mostly from the private sector view, the risks associated with achieving an expected or steady state level of toll revenue for the project. This analysis considers the outcomes of market sounding undertaken to inform the procurement strategy and the implications for value for money and procurement of the project.

Toll revenue allocation options

As North East Link will be tolled, it offers a revenue stream that the State can potentially use to fund a proportion of the project's cost. Therefore, the State has an inherent objective to optimise the value it receives for toll revenues. Tolling is also a policy choice for government about how much of the cost of the road users should pay compared to taxpayers.

The State may choose to retain the toll revenue stream or it may choose to sell the funding stream (in total or in part) to a private party (or parties). The value of the toll revenue stream depends upon each party's understanding of the expected risks and rewards over time against its rights to toll revenues. As such, the allocation of toll revenue risk and reward between the State and a private operator is critical for determining the value the State may receive from the toll revenue stream (either by retaining it, sharing or transferring it for a value). A detailed discussion on toll revenue risks and rewards can be found in Appendix C.

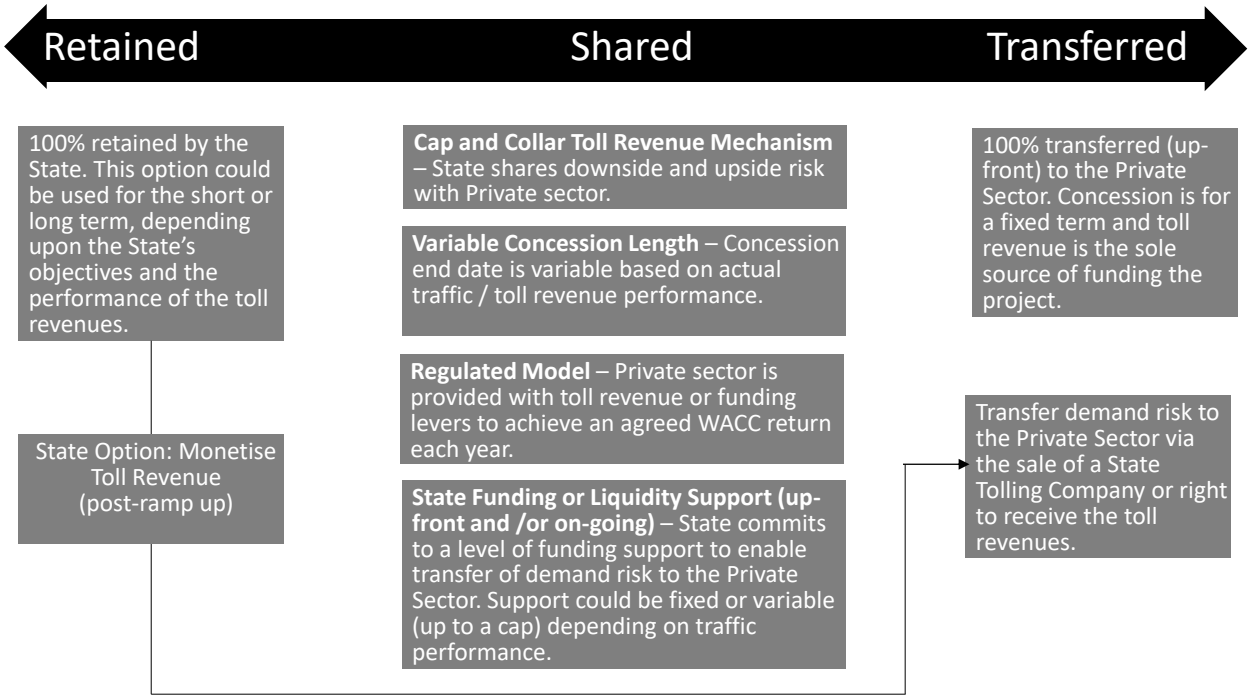
The ability for a bidder for an Economic PPP to maximise its value of the toll revenue potential of North East Link will depend upon its understanding of the factors contributing to toll revenues (as described above) and its ability to manage these through design, construction, operation and maintenance. The depth and breadth of the PPP bidding market and a bidder's willingness to compete for rights to receive the toll revenue will also be a key factor in maximising the value of the toll revenue stream. In any event, the bidder with the best understanding of toll revenues may not be the one with the best value construction and design. Bidders have limited influence over macroeconomic risks and next to none over future network and policy risks.

Bid consortia for an Economic PPP are likely to include road operators, construction companies and financial investors. In bidding for Economic PPPs, construction companies are mindful of the risks of bidding in a consortium that might have the best value design and construction, but lose to a bidder with a much more robust value of toll revenues. Financial investors will be mindful of information asymmetries.

How the State wants to achieve value for the toll revenues needs to be determined before the procurement options can be assessed, as there is an inherent relationship between the preferred approach for toll revenue allocation and core asset/services delivery.

The range of toll revenue risk and reward allocation options considered for the North East Link Project is presented in Figure 11-4.

Figure 11-4 Toll Revenue Risk and Reward Sharing Options Spectrum



Most of Australia's existing toll roads – as well as Victoria's (CityLink and EastLink) – have been delivered under a traditional greenfield toll road model, known as Build, Own, Operate, Transfer (BOOT) or Economic PPP models. However, there have been a number of high profile failures (including Cross City Tunnel, Lane Cove Tunnel, Clem 7 and Airport Link). As a result, and since the Global Financial Crisis (GFC), the market appetite for accepting toll revenue risk and reward on greenfield projects has been significantly limited.

NELA considered a range of toll revenue risk and reward allocation options based on the Toll Revenue Risk and Reward Sharing Options Spectrum presented in Figure 11-4:

- **State retains toll revenues (long-term)** where the State retains toll revenues over the long-term/indefinitely and separately procures design, construction and maintenance of North East Link. Examples of procurement models in which the State retains toll revenue risk and reward and the private sector constructs or constructs and operates/maintains include Design and Construction, Alliance, DBOM (Design, Build, Operate and Transfer) and Availability PPP. An 'availability payment plus a traffic volume fee within a PPP' model is another example where the State would retain toll revenues during the concession term – and long-term should it wish. However, the majority of other project risks (such as construction risks) would be transferred to the private sector in a PPP procurement. In an availability payment only PPP, the private sector takes the risk that traffic volumes are greater (or less) than expected and maintenance costs are earlier (or later), impacting returns. Other examples of models in which the State retains toll revenue risk and has significant design and/or construction exposure include construct only, construction management, managing contractor and early contractor involvement.

- **State retains toll revenues (ramp-up only)** where the State retains toll revenues during the 'ramp-up' phase of operations (typically two to three years) before seeking to sell/monetise the toll revenue rights via a privatisation/sale process or issuance of revenue linked instruments (such as bonds) typically to institutional or financial investors. The private sector investors take all risk on toll revenues after the sale process is concluded. The State separately procures design, construction, operations and maintenance of North East Link (which is likely to be via concession promoters and construction firms).
- **State underwrites toll revenue** where the State underwrites toll revenues with the private sector through a range of approaches including cap and collar toll revenue mechanism, variable concession length, regulated utility model, state funding or liquidity support, and State 'equity' sell down (post ramp-up).
- **State sells toll revenue risk** where the State sells toll revenues to the private sector for the full length of the concession. The private sector party raises finance against that revenue stream to fully or partially fund design, construction, operation and maintenance of the Project.

A detailed discussion on the features of each of the toll revenue risk allocation options and relevant precedents are described in Appendix S.

These toll revenue risk and reward allocation options, and the private sector's appetite for accepting and potential to value this risk, were tested with the market during the market sounding process. Key perspectives from this process as they relate to toll revenue risk and reward are in the following section.

Market sounding perspectives on toll revenue allocation

The value of the future toll revenue stream is likely to be optimised when it has been substantially de-risked – that is, it can be forecast with sufficient accuracy either because there is an established traffic history or because the State has provided some form of protection in the form of a floor – and when there is a number of investors willing to compete for the toll revenue. It is also likely to be optimised when it is sold to the deepest possible pool of investors.

Toll revenues and allocation were tested in depth during the market sounding, which revealed that there is limited appetite in the market for taking greenfield unproven toll revenues – that is, accepting this risk prior to construction and operation of the project. There is a general preference for the State to retain toll revenues for at least the initial period.

Participants identified a number of issues that could constrain their interest in participating in the project if toll revenues were to be sold as part of a PPP package, including:

- The level of information provided during procurement upon which the market can determine and reasonably price its risk exposure, particularly in relation to traffic modelling
- The very limited number of traffic forecasters in the market to enable multiple bidders to forecast the traffic demand for the project and hence the toll revenue potential
- Existing toll road operator incumbency, where existing operators are perceived to have significant advantages through a stable customer base, knowledge of the network and ability to size and offset toll revenue risk and reward through existing mechanisms in their contracts.

Essentially, the majority of the PPP market does not consider it has access to the same quality and depth of traffic information (historic and forecast) compared to existing toll road operators in order to offer a competitive toll revenue valuation.

If toll revenue risk is transferred, participants in the market sounding requested the State provide full network data and modelling outputs (with the expectation that the market could place a degree of reliance upon those outputs that would effectively transfer some risk back to the State).

Participants also noted the uncertainty relating to potential systemic changes to the way roads are used in the future, which may also constrain their ability to offer a competitive toll revenue valuation compared to existing, larger toll road operators. Potential systemic changes include network pricing and technology, network development (land use/socioeconomic forecasts) and user charging policy. It is noted that systemic changes are more within the control of government than the private sector.

Participants considered that raising fully committed financing would be challenging under an Economic PPP, as the debt capacity of the market is likely to be limited given apprehension amongst financiers (including Australian banks) and equity investors in financing projects with greenfield traffic toll revenue risk and reward (noting again the limited number of traffic forecasters available in the market to provide advice on which they can place reliance). Under an Economic PPP, financiers rely solely on the toll revenues generated by the project for the repayment of financing. Therefore, the appetite for financiers to lend to a project will depend on their confidence in traffic and toll revenue forecasts to generate a minimum required return to service the financing.

The market for long-term fixed financing is emerging, but remains shallow and is likely to be prohibitively more expensive and/or unavailable under an approach that fully transfers toll revenue risk and reward to the private sector.

In relation to the toll revenue risk sharing options discussed above, some participants were generally open to a degree of toll revenue risk and reward sharing, under terms where the State mitigated the key risks and offered a degree of investment return protection, particularly for debt investors.

Some participants provided specific views on some of the potential toll revenue risk sharing options described earlier, as follows:

- *Cap and Collar toll revenue mechanism* – Generally, participants commented that a revenue floor is required to insulate debt providers from exposure to toll revenue risk (particularly in early years during ramp-up). One participant noted that this model was still a function of the greenfield traffic profile, with the traffic forecasting limitations inherent in obtaining such a profile.
- *Variable concession length* – This model was supported by a few participants. One participant noted that this model does not address the risk that the project contractor could be in financial difficulty or insolvent if traffic volumes do not materialise as forecast (in the early years). They suggested a sunset date on the concession and a cash settlement to ensure a minimum equity return, which is payable on the sunset date.
- *Regulated utility model* – One participant commented that this model is not suited to a greenfield toll road as it does not address the concerns regarding traffic forecasts for a new road and would only be sustainable where actual traffic levels are very close to base case forecasts.
- *State 'equity' sell down (post ramp-up)* – Some participants favoured this model however they also noted key differences between the WestConnex model that used this approach compared to the North East Link project in that WestConnex has a level of 'brownfield' traffic and toll revenue data, as the adjoining road network is already tolled so a level of confidence in potential revenues can be provided through assessment of behaviour on these adjacent links. There were also a few participants who did not believe this model provided value for money outcomes for the State.

In summary, the preliminary market sounding indicated that there is limited appetite in the private sector for bidding on greenfield toll revenues as part of the North East Link Project, other than for a small number of existing toll road investors/operators (domestic and international).

While a greater proportion of the market are open to toll revenue risk sharing options, with a particular preference for a 'Cap and Collar' toll revenue sharing mechanism, the likelihood of the State optimising value from the private sector under this approach could still be constrained by the ability to maximise competition and a shortage of traffic forecasting capability in the sector. The utility of the Cap and Collar mechanism is further weakened because the toll revenues do not fully fund construction and the need to introduce government funding during construction or at completion undermines the incentives the Cap and Collar mechanism is trying to introduce.

Valuing toll revenue

In valuing the potential toll revenue likely to be generated by a toll road over a typical period of 30 to 40 years (the most common concession period for toll roads), a number of factors are considered. When investing in a toll road, the market will make assumptions on the return on investment, based on their confidence in the forecasts that inform the toll revenue over the life of the investment, and place a risk premium on the forecasts that reflect that confidence.

Redacted – commercial-in-confidence

Redacted – commercial-in-confidence

Preferred toll revenue risk allocation

The market sounding and financial analysis for the project strongly suggests that the State retaining toll revenues (at least initially) represents a superior value for money solution, particularly when compared to revenue risk sharing models where the risk is transferred on a greenfield basis at financial close.

Monetising proven toll revenues after the road is open to a large group of potential institutional investors is likely to achieve better value for money than asking a narrower field of PPP bidders to value unproven toll revenues as part of a PPP bid where construction costs are a dominant competitive factor. Of the limited range of investors likely to compete to value greenfield toll revenues upfront, each is expected to apply a significant discount or risk premium to unproven revenues.

Given that the up-front value of the forecast toll revenues is materially below the estimated construction cost, any economic toll road structure would require significant State contribution during construction or a mixed toll revenue and availability payment stream to fund the project. In any event, the party able to bid the best value for the construction and operation aspects of the project may not be the party who can provide the best value for the toll revenues.

In addition, revenue risk sharing approaches have not been used in the Australian market and would introduce further complexity into the procurement process and contract management task for the State.

A further advantage to the State of retaining toll revenue risk is that it offers greater flexibility to manage tolling structures in the future in response to demand and broader user-charging policies. For example, the State may seek to amend toll pricing on the project to optimise traffic performance on the broader road network.

Management of risk associated with retaining toll revenues

While retaining toll revenues for a time has the greatest potential to maximise the value of the asset to government, it does mean that the State remains exposed to the risk of toll revenues being lower than forecast, which could result in a funding deficit for the State. In this case, the potential increase in value expected to be created by transferring toll revenue risk post ramp-up could be offset (at least in part) by poor traffic performance up to the point of transfer.

To mitigate its own traffic forecasting risk, the State has access to sophisticated traffic forecasting capabilities, both internal to Transport for Victoria and externally via its independent traffic forecasters. In addition, the State also has broader transport network behaviour information and data that can support forecasting; as such, it is in a position to forecast the potential traffic on North East Link more accurately than the broader market.

11.5.3 Market sounding

The first stage of the market sounding process was conducted by NELA by extending invitations to 22 domestic and international constructors, toll road operators and financial sponsors and debt and equity providers. These invitees provided a representative cross section of the market.

The intent of the market sounding process was to seek feedback from a wide range of potential PPP participants in the project to inform the development of the procurement strategy and commercial structure.

This section summarises the market sounding feedback for procurement issues other than toll revenues (addressed in section 11.5.2). The report on market sounding process and outcomes is provided in Appendix S. In relation to the different procurement options, the assessment was informed by the following market feedback:

- **Market capacity**: While there are several large scale projects currently being procured and in the planning stages in the Australian market, participants suggested that the timing and scale of the North East Link Project would allow NELA to tender the project scope work elements competitively, depending upon its final value and contribution by the State. However, it is noted that competitiveness will vary with the degree of toll revenue risk transferred to the private operator (noting less toll revenue risk is preferred by the majority of the market). In assessing procurement options, NELA will favour options that leverage capacity in the market to generate an appropriate level of competitive tension.
- **Market appetite**: There is substantial appetite for the project, noting that international participants raised particular concerns in relation to their ability to partner with local developers and the clarity of evaluation/bidding criteria. All participants expressed concerns regarding the perceived advantages of incumbent operators in the market, while noting that these concerns are mitigated to the extent toll revenue risk is retained by the State. In assessing procurement options and planning for procurement, NELA will actively promote the involvement of international participants to drive competition.
- **Financial**: In general terms, the majority of participants indicated that raising finance (both debt and equity) will be constrained under toll revenue risk sharing models. In assessing procurement options, NELA will favour options that maximise competition and value for money across construction, operations and financing (where required).
- **Procurement process**: Participants were generally comfortable with the proposed timeframes and shared valuable lessons learned from previous experiences that may enhance the attractiveness of the project, including having an interactive process with an appropriate level of interaction at each stage, having access to appropriate State personnel who can provide timely decisions, having an honest bid feedback process and having certainty that the project documents (released at the Request for Proposals stage) will reflect reasonably final positions. NELA will ensure that this feedback is incorporated into any subsequent procurement process.

11.5.4 Procurement options assessment: Primary Package

Following identification of the Reference Packaging Solution, development of procurement assessment criteria, consideration of toll revenue risk sharing models and market sounding feedback, the next phase in the procurement assessment approach entailed assessment of available procurement models for the Primary Package of North East Link. Consideration of the Secondary Packages is outlined in section 11.8.2.

Selection of procurement options

A long list of procurement options was considered for the Primary Package of North East Link. Appendix S contains a detailed summary of advantages and disadvantages of each of these potential procurement models.

Following consideration of the advantages and disadvantages of each procurement model, the following models were set aside as not suitable for delivery of North East Link:

- Construct only
- Construction management
- Managing contractor
- Early Contractor Involvement (ECI).

Table 11-6 summarises the rationale for setting aside these models.

Table 11-6 Procurement models set aside

Procurement model	Summary description	Rationale for setting aside
Construct only	State is responsible for the design of the project. State tenders construction works and awards them on a fixed price basis. This model allows the State to retain control of the design process and can potentially provide a degree of budget certainty to the State.	Under this model, the State retains control of the design process and bears associated risk, potentially leading to price uncertainty as the construction final price is dependent upon the completeness and accuracy of the design. This model exposes the State to major risks (such as interface, design and tunnelling risks) that it may wish to transfer given the size and complexity of the project. Considering the magnitude of the project, the design risk and consequent interface with construction is considered best allocated to the private sector, with a design process likely bundled with the construction element to provide the best value for money to the State.
Construction management	Construction manager engaged to manage and coordinate construction works on behalf of the principal, and paid a fee based on a percentage of the value of the works. Similar advantages and disadvantages to the Construct only model.	For similar reasons to the Construct only model, the construction management model is recommended to be excluded. The construction manager may provide some design advice but does not accept overall design risk. Furthermore, this model does not transfer any risk to the construction manager, which is not considered beneficial to the project or likely to meet the State's procurement objectives.
Managing contractor	The principal prepares a project brief, including a budget estimate and estimated completion time, and the managing contractor works collaboratively with the principal to revise the project brief, then refines the design and manages documentation and project delivery, thereby accepting some delivery risk. This model is suitable for complex or high risk projects with an uncertain scope of risks.	This model exposes the State to major risks (such as cost overrun, commissioning and tunnelling risks) that the State may wish to transfer given the size and complexity of the project. Furthermore, while the project is complex, its scope and risk profile are not considered to be so uncertain as to warrant consideration of this procurement model.
Early Contractor Involvement (ECI)	Contractors are engaged early in the project to provide input into the design process and to have clear communication between all parties around the project and its key risks. This model is suitable for high risk projects with uncertain scope of risks.	Refer to rationale for managing contractor procurement model (above).

The following procurement models were considered as potentially suitable for delivery of the project and were assessed against the procurement assessment criteria outlined in section 11.5.1 to identify the most appropriate model for delivery of the Primary Package:

- D&C Contract with separate O&M Contract
- Design, Build, Operate and Maintain (DBOM)
- Alliance
- Availability PPP
- Economic PPP.

Assessment of procurement options

Table 11-7 presents the rating system used to rank the procurement options.

Table 11-7 Procurement model assessment rating

Rating	Number	Description
✓✓✓	3	Extremely effective in satisfying the requirements of the criterion.
✓✓	2	Effective in satisfying the requirements of the criterion.
✓	1	Just satisfies the requirements of the criterion.
×	0	Is ineffective in satisfying the requirements of the criterion.
××	-1	Is extremely ineffective in satisfying the requirements of the criterion.

To score and rank each option, a weighted score was calculated by multiplying the 'Assessment Score' by the 'Importance' rating. The importance rating attracts the following weightings: High = 3, Medium = 2 and Low = 1.

Table 11-8 summarises the assessment of the shortlisted delivery models against the procurement criteria.

Table 11-8 Shortlisted delivery models: assessment summary

Procurement criteria	Importance rating	D&C	Alliance	DBOM	Availability PPP	Economic PPP
Maximise market interest	High	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓
Transport network integration	High	✓✓✓	✓✓✓	✓✓	✓✓	✓
Price and budget certainty	High	✓	×	✓	✓✓✓	✓✓✓
Risk transfer	High	✓	×	✓	✓✓✓	✓✓✓
Innovation	Moderate	✓	✓	✓✓	✓✓	✓✓✓
Time	High	✓✓	✓✓	✓✓	✓✓✓	✓✓✓
Operational performance	Moderate	✓	✓	✓✓	✓✓	✓✓✓
Simplicity	Moderate	✓✓✓	✓✓	✓✓	✓	✓
Un-weighted score		15	12	15	19	18
Weighted score		40	32	39	52	47

Procurement criteria	Importance rating	D&C	Alliance	DBOM	Availability PPP	Economic PPP
Weighted Ranking (1 = highest preference)		**3**	**5**	**4**	**1**	**2**

Based upon this assessment, the highest ranked delivery model for the Primary Package is an **Availability PPP** (weighted score of 52). This is followed by an Economic PPP model (weighted score of 47), the D&C model with separate maintenance contract (weighted score of 40), DBOM (weighted score of 39) and the Alliance model (weighted score of 32).

Refer to Appendix S for the detailed qualitative assessment of each procurement option against the criteria.

11.6 Preferred delivery model – Primary Package (Step 5)

Based on the procurement options assessment for the Reference Packaging Solution, the highest ranked and recommended delivery model for the Primary Package is an Availability PPP model.

The key factors for recommending an Availability based PPP model are:

- **Risk management / Price and budget certainty** – Whole-of-life models such as PPPs offer comparative advantages over D&C and alliance models predominantly in relation to budget certainty and risk allocation over the life of the project via a robust and effective allocation of risk to the private sector. These advantages are critically important for a project of this scale, cost and complexity with specific regard to the tunnelling component of the works. From a cost perspective, the Project is among the biggest infrastructure projects in Australia.

  Historically, the State has not attempted procurement of projects with this type of risk profile and cost via D&C or alliance based models. PPP models have been selected for projects that involve tunnelling risk, including CityLink, EastLink and the Metro Tunnel project (tunnel and stations) as it offers the State the strongest protection from the significant construction and delivery risks associated with tunnelling. The problems encountered during construction of the Burnley Tunnel are well documented and delivery under the Build, Own, Operate, Transfer (BOOT) scheme (a form of PPP) protected the State from construction cost consequences in that instance. From a contractual perspective, D&C models offer lower levels of cost and risk protection for the State (up-front and on a whole of life basis).

  In absolute terms, the whole-of-life delivery models' cost advantage compared to 'traditional models' (D&C or Alliance) has been found to be economically and statistically significant.[2] A detailed analysis of publicly available data for a sample of 21 whole-of-life projects and 33 traditional projects found that on a contracted $4.9 billion of whole-of-life projects, the net construction cost overrun was $58 million. For $4.5 billion of D&C procurement projects, the net construction cost over-run amounted to $673 million or approximately a 14 percent comparative cost overrun.

  The Alliance model is most suited to projects where significant construction risks are difficult to identify and therefore difficult to allocate and price up-front on an efficient basis, and/or where a project's scope is not able to be clearly defined at the outset. Given the nature of the North East Link Project, it is considered that scope and risk (while material) can be reasonably well understood by the State and private sector. Further, the alliance model involves the State taking additional time, cost and quality risk. The alliance model is not, therefore, considered the optimal model.

[2] Infrastructure Partnership Australia, Performance of PPPs and Traditional Procurement in Australia, 2016

- **Benefits of third party debt and equity finance** – Using private finance introduces additional discipline and scrutiny of risk (for example, financier due diligence and oversight during the bid process and throughout the concession term) over the long-term compared to publicly funded models. This increased focus on risk and cost assessment, coupled with a competitive and well-structured tender process, should drive an improved understanding, mitigation and pricing of risk and cost to the benefit of the State. Using private finance also minimises and insulates the State's funding exposure to the project with respect to cost overruns. The enhanced level of financial discipline and scrutiny generated by private sector debt and equity providers within a PPP structure also drives operational performance, as payments by the State are linked directly to the performance (measured via KPIs) of the project contractor.
- **Market interest** – Market sounding to date has demonstrated strong market interest in and potential competition for the project delivered as an Availability PPP. Victoria and New South Wales are in the midst of an elevated level of construction activity, which drives resource scarcity and means construction companies are being more prudent in deploying their resources and time.

  As recently as October 2017, NSW's Roads and Maritime Services decided not to progress the request for tender for the Rozelle interchange project (part of WestConnex) as it received only one response to the expression of interest, citing it was unlikely to deliver value for money for the taxpayer. As such, establishing market interest domestically and internationally for the project is critical to drive competition in cost and innovation.

  The project's scale is large enough to attract significant international interest, particularly contractors with tunnelling experience. The selected procurement model should seek to foster the international market's interest and willingness to participate. For Victoria, this offers benefits beyond the project in terms of driving competition and innovation in the construction industry more broadly.

  The Economic PPP model suffered from low market interest in accepting (and significant sharing of) toll revenue risk and is therefore likely to result in a low degree of competition.
- **Operational performance** – PPPs offer comparatively stronger operational performance regimes with commercial incentives via KPI and service payment abatement regimes. To meet performance standards over the long-term while also optimising cost, PPP contractors are required to develop detailed, long-term asset management and maintenance plans. This means PPP operators proactively manage the asset over the long-term in accordance with how it was constructed and how it must perform under the contract. They must also continue to invest in lifecycle/asset replacement throughout the contract term to meet asset condition hand-back requirements. This approach compares to traditional maintenance contracts that are generally short-term, suffer from inconsistent funding allocations and are also much more 'reactive' in nature, leading to less maintenance, less often.

  Use of a whole-of-life contracting approaches minimises the scenario where the enduring quality of the asset (and therefore its maintenance costs and operational performance) is compromised as a consequence of short-sighted construction decisions made earlier under a separate contract with different parties. D&C contracting approaches are susceptible to these compromises.
- **Innovation** – A focus on longer term/whole-of-life contracting also provides the potential to deliver private sector design innovation in terms of how best to maintain and operate the asset over the term in the most cost-effective and efficient manner, while still meeting performance criteria.

- **Meeting timelines** – Timing is critical for the State, not only in addressing the traffic problems identified in the business case but also as it relies on toll revenues as a key funding source for the project. Overall, D&C procured projects are likely to be completed later than whole-of-life models relative to budget. For example, between the signing of the final contract and project completion, whole-of-life procured projects were found to be completed 3.4 percent ahead of time on average, while D&C projects were completed 23.5 percent behind the originally planned schedule. [3]
- **Flexibility** – By virtue of the fact that the State retains toll revenue risk, it offers greater flexibility for the State to amend toll pricing in the future in response to demand, network and technology change.

11.7 Key considerations for an integrated delivery strategy

In identifying the preferred delivery model for the Primary Package as an Availability PPP, subsequent considerations are needed to finalise an integrated delivery strategy for North East Link:

- How the delivery of the Primary Package as an Availability PPP is aligned with delivery of the Secondary Packages in construction and operation to provide an integrated design solution and operational outcome and minimise interface risk
- In the State retaining the toll revenue allocation, what measures should be taken to align incentives for PPP Co in the design and operation of the project when they are not exposed to toll revenue allocation risk
- How to deliver the tolling system to provide an integrated tolling solution for the project.

These issues will be progressed further as part of the procurement phase of the project, including through the next stage of market sounding and are discussed briefly in the following sections.

11.8 Contractual framework and commercial considerations

11.8.1 Aligning performance incentives

In the absence of full alignment of interests for operating the toll road to maximise throughput and toll revenue, the party retaining toll revenue needs a contractual framework that incentivises the operating party to operate the road in a way which maximises throughput and thus tolling revenue and potentially to have exposure to revenue volatility (in a positive or negative way). Without contractual incentives, the operator of an Availability PPP Co would not be naturally incentivised drive increased traffic throughput as this leads to higher operations and maintenance expenditure for the build and operate party. PPP Co should be incentivised not to reduce expected revenues and to minimise interruptions to revenue (for example, during build delays, traffic incidents and lane closures for maintenance).

NELA is considering a range of potential measures for improving the alignment of incentives and interests of the PPP Co under the preferred procurement model. These include:

- Contractual drivers – considering the development and calibration of liquidated damages, service payment KPI and abatement regimes that emphasise lane availability, traffic management and traffic throughout maximisation

[3] Allen Consulting Group and Infrastructure Partnerships Australia, Performance of PPPs and Traditional Procurement in Australia, 2016.

- Positive contractual incentives – considering financial performance incentives linked to lane availability and traffic management, which may include financial incentives that are linked to traffic performance (speed/throughput levels) and/or toll revenue. Such measures may be in place for a limited time; for example, during early/ramp-up stages of the project
- Contract administration – considering options for a future private owner of the Tolling Company and rights to co-administer or become counter-party to the Availability PPP contract. This offers greater control to the Tolling Company and may improve valuations of the toll revenue should the State seek to monetise it in the future
- Aligning ownership interests – considering options to offer a future private owner of the Tolling Company the rights to purchase equity in the PPP Co. This also offers greater control to the Tolling Company and may improve valuations of the toll revenue should the State seek to monetise it in the future.
- Procurement – having evaluation criteria that specifically addresses the manner in which respondents address the above issues.

NELA will continue to develop and test these measures with the market in the lead up to procurement.

11.8.2 Potential contractual framework – including Secondary Package(s)

In selecting a packaging solution that separates the project into two to three construction packages for delivery, with an Availability PPP model for delivery of the Primary Package and longer term operation, an appropriate delivery framework for North East Link must consider the following key issues:

- **Integrated functional design solution**: Implementing a framework that enables integrated end-to-end functional design and operational solution and also maximises the market's ability to innovate in developing this solution is a critical success factor for the project
- **Design and construction interfaces**: Implementing a framework that mitigates interface risk associated with multiple construction packages and still enables innovation in the design and operational solution
- **Operational integration**: In selecting an Availability PPP to undertake the Primary Package with the State potentially monetising the toll revenue stream at a later date, consideration is required on how to implement a framework that enables longer term operational integration.

To address these issues, three potential contractual frameworks have been identified that incorporate a Primary Package of an Availability PPP, with other packages that may be delivered in a non-privately financed manner. A preliminary assessment has been undertaken to identify the advantages and disadvantages of each arrangement for the State. Further detail can be found in Appendix S.

Table 11-9 Contractual framework options

Contractual framework	Description	Advantages	Disadvantages
Option 1	PPP Co undertakes the Reference Design for the whole project while the State manages the separate construction packages.	Maximises innovation in the initial design	The interface risk remains with the State, which may not be the most appropriate party to manage this risk. The State or future Toll Co must manage operational interfaces over the life of the project.

Contractual framework	Description	Advantages	Disadvantages
Option 2	PPP Co undertakes the overarching Reference Design, as well as management of the interfaces between the separate construction packages. This is different from option 1 where the State retains control of the delivery of the Secondary Package(s) and therefore interface risk.	Maximises innovation in design and operations Interface risk is shared / transferred to PPP Co	PPP Co must take over works constructed by other parties. This innovative delivery model may not be fully embraced by the market, with more risk retained by the State than desirable, including completion risk and a level of interface risk. It is likely to take longer as a result of secondary procurement process(es).
Option 3	State undertakes the overarching Reference Design, as well as managing the interfaces between the separate construction packages. This is different from option 1 where the State retains control of the design and delivery of the Secondary Package(s) and therefore interface risk and from option 2 where PPP Co fulfils an overarching management and interface control role.	There is some room for innovation in design undertaken by the State	This would require a delayed procurement and delivery as the State needs to spend more time developing a more detailed Reference Design. The interface risk for design, construction and operations remains with the State. The State-owned or future private Toll Co must manage operational interfaces over the life of the project.

An initial assessment of the advantages and disadvantages of each of these options indicated that option 2 is likely to be the most favourable of these options because it transfers responsibility and a level of risk to the PPP Co, which is considered to be the party best able to manage the interfaces and longer term operations and maintenance. However, there is a risk that this model may not be acceptable to the market.

Further consideration will be undertaken of the following key issues, through analysis and market testing:

- All options introduce a level of uncertainty in relation to the pricing of the project up front, as well as the O&M period, which cannot be priced until all packages are designed
- Ensuring delivery timelines can be achieved
- Management of interface risks during design, construction and operation.

11.9 Delivering the tolling system

Given the long operating history of toll roads in Victoria, it is expected that a significant proportion of potential users of the project will already be customers of the existing toll road operators. As such, it is assumed that the project will be a 'roaming road' whereby users will not open a new customer account specific to this project but will use their existing accounts or tags. The existing toll operators will process transactions of their customers who use the project in exchange for a roaming fee that will be paid either by the State Toll Co or by users via the toll.

The State will need to establish a comparatively small customer interface and toll collection function to accommodate users who are not customers of existing toll operators. Tolling scope includes not only design and construction of tolling related infrastructure but also establishment of toll collection systems, transaction processing and customer/retail interface.

A preliminary scoping analysis has considered varying levels of involvement of the PPP Co in the delivery of the tolling scope, as set out in Table 11-10.

Table 11-10 PPP Co and tolling scope options

Structure / Scope Option	Description
1. PPP Minimum – Separate toll entity	PPP Co has the **minimum** tolling scope (D&C of tolling pits, footings and conduits only, with a minimal O&M function associated with pits and footings). The State Toll Co is a separate entity that develops (or procures development of) all tolling systems / equipment installation (including gantries) and maintenance, toll collection / back office, communications / networks, electronic tolling signage, tech shelters maintenance and customer interface / retail function.
2. PPP Medium – Separate toll entity	PPP Co has the **medium** tolling scope, whereby it undertakes D&C and O&M of significant project level tolling related infrastructure, equipment, toll collection systems, electronic signage and tech shelters. The State Toll Co is a separate entity that develops (or procures development of) a tolling related customer interface / retail function only.
3a. PPP Maximum– Separate toll entity	PPP Co has the **maximum** tolling scope, which includes all scope under Option 2 and the customer interface / retail function. The State Toll Co does not procure works or services and simply receives toll revenue collected by PPP Co.
3b. PPP Maximum– No separate toll entity	PPP Co has the **maximum** tolling scope, which includes all scope under Option 2 and the customer interface / retail function. A State-owned toll entity does not exist and PPP Co remits toll revenues directly to the State (for example, to an existing department or agency such as DTF).
4. PPP Maximum – State owned corporate entity	PPP Co has the **maximum** tolling scope. A separate North East Link Co (State-owned corporate entity) is the Availability PPP contract counter-party and receives toll revenue from PPP Co. A separate North East Link Co could be capitalised via equity contributions from the State Government.

In considering tolling scope options, it will be critical for the State to maximise accountability and reduce interface risks associated with all toll revenue collection, billing and customer activities. Moreover, the scope option must not preclude or constrain the State's ability to monetise or divest the State Toll Co in the future.

Based on the preliminary analysis, Option 1 is the preferred tolling scope option for the following reasons:

- It offers the clearest differentiation between the scope of the PPP Co and the State Toll Co, while allowing the State to complete basic infrastructure works required to enable tolling by mobilising the PPP Co. This differentiation enables strong lines of accountability and minimises potential interfaces.
- It offers flexibility regarding monetisation/divestment options in the future by establishing a clear, stand-alone entity with minimal toll collection-related interfaces with the PPP Co (compared to other options).

For the purposes of the business case, NELA's preferred tolling scope option is Option 1. NELA will continue to refine its tolling scope options in conjunction with DTF throughout the pre-procurement phase.

In establishing the Availability PPP contract and the State Toll Co (and the interfaces between the two), NELA and DTF will develop structures and delivery approaches that optimise value for money from a tax and accounting perspective for the State.

12 Budget and accounting

An assessment of the indicative budget impacts associated with the North East Link Project has been completed to support the State's investment decision. This assessment assumes that the State will deliver the project adopting the Reference Packaging Solution outlined in Chapter 11 (as distinct from the financial analysis undertaken for the project, which is based on the Reference Project).

This chapter summarises the differences between the current and future accounting treatments for Availability PPPs. It also presents the accounting and budget impacts under current and future applicable accounting standards and the expected cash flow impact of the Reference Project (traditional procurement).

12.1 State capital contributions

Pre-GFC, construction of PPP projects was typically fully privately financed and effectively repaid over the concession period. Post-GFC, State funding contributions have become more common than fully financed deals and have been used as a means of reducing total private sector financing requirements, and therefore financing costs payable by the State.

The Reference Packaging Solution assumes that State contributions are made during:

- The D&C phase or by substantial contributions/repayments at or after Commercial Acceptance (CA) – typically made where there are constraints on private capital being raised to fully finance a very large project

  – or –

- At scheduled refinancing events during the O&M phase of the project – typically made to achieve greater value for the State by reducing future service payments.

To address balance sheet constraints of potential operators identified during the market sounding, DTF and NELA have deemed that the Availability PPP for the Primary Package will benefit from State funding contributions.

A State funding contribution in this instance would be consistent with recent Victorian PPP projects and in accordance with DTF policy requirements[4]. In considering the timing and quantum of funding contributions, the State will seek to balance a reduction in the private financing costs of the operator while maintaining sufficient private capital at risk to absorb O&M risk and provide performance incentives.

Based on discussions with NELA and DTF, the following funding contribution assumptions have been made for the purposes of the accounting and budget analysis for the Primary Package:

- *Redacted – commercial-in-confidence*

- *Redacted – commercial-in-confidence*

[4] Partnerships Victoria Requirements, Department of Treasury and Finance, November 2016

Redacted – commercial-in-confidence It is also assumed that these contributions will be sourced from the State Government. Contributions from other sources have not been considered for this business case.

Further consideration about the quantum, timing and structure of State funding contributions will be undertaken as part of the next stage of the North East Link Project's development in accordance with more detailed development of the recommended packaging and procurement models. NELA and DTF will seek approval from the State Government for any material amendment to the contribution approach assumed in this business case and will finalise the approach to funding contributions prior to the release of tender documentation for the Primary Package.

Depending on the timing of the capital contributions, the accounting treatment is discussed below.

State capital contributions prior to CA

Redacted – commercial-in-confidence

State capital contributions post CA

Redacted – commercial-in-confidence

12.2 Overview of approach

As described in Chapter 11, based on the Reference Packaging Solution assumptions, the North East Link Project will consist of sections of road assets, procured as follows:

- The middle section of the road assets (which includes the tunnels) will be procured as an Availability PPP and designed and constructed (D&C), operated and maintained (O&M) by a private sector operator (PPP Co). This section is referred to as the 'Primary Package', *Redacted – commercial-in-confidence*
- The two outer sections of the road assets will be procured with a separate private sector counterparty (or parties) as the D&C contractor(s). These sections are referred to as the 'Secondary Package(s)', *Redacted – commercial-in-confidence*

  State-owned Toll Co capex, including electronic tolling systems and tolling back office capex during the construction period, *Redacted – commercial-in-confidence*
- The Reference Packaging Solution assumes that the road assets will be subject to a tolling regime, where a separate State-owned entity (State Toll Co) will undertake all toll collections, D&C and O&M for toll infrastructure.

12.2.1 Current accounting framework

Until new Australian Accounting Standard AASB 1059 *Service Concession Arrangements: Grantors* (AASB 1059) was issued in July 2017, no specific Australian Accounting Standard or interpretation existed that prescribed the accounting for PPPs – also known as Service Concession Arrangements (SCAs) – from the perspective of the government grantor. AASB 1059 will be applicable to the State's financial statements from 1 July 2019. While the standard is available for early adoption, it is not common practice for DTF to permit Victorian public sector entities to early adopt new accounting standards.

In the absence of a specific Australian Accounting Standard for PPPs from the perspective of the government grantor, the State's selected accounting policy is to apply the 'risks and rewards' approach to PPP arrangements, consistent with the Draft DTF *Accounting & Reporting Guidance for Social Infrastructure Public Private Partnership Projects* (2011).

Generally, when applied to Availability PPPs, the risks and rewards approach results in the State accounting for such arrangements as finance leases. The State recognises finance lease assets on its balance sheet at CA or at the earlier date when the assets are ready to be used by the State for the provision of public services – together with a corresponding finance lease liability for its obligation to make service payments to the private sector operator.

12.2.2 Future accounting framework

From 1 July 2019, the State will be required to adopt the requirements of AASB 1059, which establishes a control or regulation approach to accounting for SCAs.

For PPPs that fall within the scope of the new standard, the control and regulation approach under AASB 1059 will result in the State recognising the assets provided by the private sector operator under a SCA or an upgrade to an existing asset if the State controls the asset. The assets are initially recognised at their fair value (which is specified in AABS 1059 as being current replacement cost) together with a corresponding financial liability and are recognised progressively over the construction phase, rather than when the assets are ready to be used by the State for the provision of public services, to the extent that the government controls or regulates the assets during the construction period and the asset meets the recognition criteria.

The following table outlines the main differences between the current and future accounting approaches under AASB 1059 for Availability PPPs[5], including the impact on forward estimates and net debt[6] as these will apply to the Primary Package.

Table 12-1 Differences between current leasing approach and future approach for Availability PPPs

	Current leasing approach	Future control and regulation approach
Accounting framework	• The leased asset and corresponding lease liability are recognised at CA or earlier when the assets are ready to be used by the State for the provision of public services (post completion of construction) applying the finance lease principles under AASB 117	• The service concession assets and corresponding financial liability are recognised earlier, progressively from the date that construction commences (post Financial Close (FC)) to the extent that control or regulation arises from that date

[5] This table does not address the accounting impacts arising from the State-procured D&C.

[6] Government Finance Statistics (GFS) definition of net debt = debt (deposits held, advances received, government securities, loans, and other borrowings) less cash and deposits, advances paid and investments, loans and placements. Therefore, in relation to Availability PPPs, the liability negatively impacts net debt as does any reduction in cash. The assets are not included in the net debt calculation.

	Current leasing approach	Future control and regulation approach
	• No accounting consequences over the construction phase other than in respect of any upfront State contributions (recognised as a prepaid asset) or State project costs incurred during this period • Net debt and forward estimates impact delayed until CA (see below), or at the date when the assets are ready to be used by the State for the provision of public services with the exception of any upfront capital contributions • Disclosure of the lease commitments in the financial statements during the construction phase as a note to the accounts • Disclosure of significant terms of the arrangements that may affect the amount, timing and uncertainty of future cash flows as a note to the accounts	• Accounting consequences arise from the start of the construction period • Earlier net debt and forward estimates impact (see below) • Disclosure of significant terms of the arrangements that may affect the amount, timing and uncertainty of future cash flows as a note to the accounts
Timing of initial recognition of assets and liabilities for the PPP arrangement	• Usually at CA or earlier when the assets are ready to be used by the State for the provision of public services	• From FC
Nature of assets and liability	• Assets are recognised as leased assets together with a lease liability	• Assets are recognised as service concession assets together with a financial liability
Initial recognition of assets[7]	• Leased assets are recognised initially at the date of CA (or earlier when the assets are ready to be used by the State for the provision of public services) • Leased assets are recognised at the lower of fair value or the present value of the minimum lease payments • Fair value of assets is assumed to consist of the construction costs, including financing and interest costs of the operator during construction and any other costs incurred by the operator in relation to the construction of the assets that will be recovered through the Service Payments (SP)	• Service concession assets are recognised progressively from the beginning of the construction period as they are constructed • Assets are recognised at fair value, being current replacement cost • *Redacted – commercial-in-confidence*
Initial recognition of liability	• Lease liability is recognised at CA (or earlier when the assets are ready to be used by the State for the provision of public services) at the same value as the leased assets	• Financial liability is recognised progressively from the beginning of the construction period at the same value as the service concession assets which are recognised progressively as they are constructed • *Redacted – commercial-in-confidence*

[7] At the date of CA, the fair value of the assets will be the same under both approaches.

	Current leasing approach	Future control and regulation approach
Subsequent measurement of assets	• After initial recognition, the assets are subject to depreciation, impairment and revaluation	• After initial recognition, the assets are subject to depreciation, impairment and revaluation
Subsequent measurement of liability	• The carrying amount of the lease liability at the end of each period is calculated by adding the finance charge for the period to the outstanding balance and deducting cash paid in respect of the Financing Component of the SP during the operating term	• The carrying amount of the financial liability at the end of each period is calculated by adding the finance charge for the period to the outstanding balance and deducting cash paid in respect of the Financing Component of the SP during the operating term
Finance charge on the liability	• The finance charge is the rate implicit in the lease that discounts the capital component of the SPs to the fair value of the assets at CA (or earlier recognition date) • No finance charge (interest expense) is recognised over the construction phase • Recognition of the finance charge only commences from CA (or earlier recognition date) during the operations phase	• The finance charge is determined based on the rate implicit in the arrangement specific to the service concession asset • The finance charge (interest expense) is incurred from the date of the initial recognition of the liability (which commences from FC) • Therefore, an interest expense is recognised over the construction phase as well as the operating phase • The rate implicit in the arrangement is less than the rate implicit in the lease under current approach
Road resurfacing[8]	• Where the resurfacing meets the criteria for recognition under AASB 116, the cost is capitalised as a separate asset (and any replacement component derecognised at that time)	• Where the resurfacing meets the criteria for recognition under AASB 116, the cost is capitalised as a separate service concession asset together with an additional corresponding financial liability
Operations and maintenance costs (O&M)	• Expensed as incurred	• Expensed as incurred
Capital contributions prior to CA	• Any capital contribution will be recognised as a lease prepayment and reduce the finance lease liability recognised at CA	• Any capital contributions during construction phase will progressively reduce the financial liability
Capital contributions after CA	• After CA, any capital contribution will reduce the lease liability	• After CA, any capital contribution will reduce the financial liability
Net debt and budget impact	• No net debt impact during the construction phase other than in respect of any capital contributions prior to CA due to reduction in cash • Net debt impact at CA (or earlier recognition date) due to recognition of lease liability • Net debt not impacted by the capital contribution two years post CA since the reduction in liability is offset by cash contributed • No impact to operating result over construction phase	• Net debt will be impacted over the construction period as the financial liability is progressively recognised • Net debt not impacted by the capital contributions (prior to or post CA) since the reduction in the liability is offset by the cash contributed • Decrease in operating result over the construction phase due to interest expense recognised on the financial liability • Decrease in operating result over the operations phase due to:

[8] Where the road surface is a separate component and resurfacing is considered the replacement of a major component

	Current leasing approach	Future control and regulation approach
	• Decrease in operating result over the operations phase due to: – Interest expense recognised on the lease liability and other service costs (such as O&M) – Depreciation of leased asset	– Interest expense recognised on the financial liability and other service costs (such as O&M) – Depreciation of service concession asset

12.2.3 Accounting for Secondary Package(s)

In addition to the Primary Package, the State will enter into a D&C arrangement with separate private sector entities, based on the Reference Packaging Solution.

Current accounting framework

The State will make progressive payments for the D&C costs as and when the road assets are constructed and will recognise the costs related to those assets as owned assets rather than leased assets until CA.

At CA, assets procured under the Secondary Packages' arrangements will be bundled into the Availability PPP arrangement, under which the Operator will be required to undertake O&M and lifecycle replacement services consistent with other road assets procured under the Primary Package. As the State has no further obligations to make capital payments relating to such assets to the operator, this will not result in any additional lease liability for the State in respect of such assets.

Future accounting framework

During the construction phase, the accounting for the Secondary Packages' road assets is the same as under the current accounting framework.

Post-construction, the Secondary Packages' road assets will be subject to the Availability PPP arrangement. To the extent that these assets fall within the scope of AASB 1059, they will be required to be reclassified to service concession assets, at their fair value being current replacement cost. This is assumed to occur at CA.

12.2.4 Accounting by the State-owned Toll Co

The State is considering establishing a separate State-owned entity (Toll Co), which will hold the tolling infrastructure assets, undertake all toll collections and D&C/O&M for the tolling infrastructure.

As Toll Co constructs the tolling-related infrastructure, it will progressively recognise the assets at their cost of acquisition/construction.

During the operations phase, Toll Co will recognise employee-related, O&M and other expenses that it incurs in the general course of business. Toll Co will also recognise revenue from tolls as it is earned, which occurs as each user travels on the road. The State is not able to recognise its right to future toll charges as an asset.

Refer to Appendix T for a full consideration of accounting impacts under the current and future accounting frameworks.

12.3 Key assumptions

The tables in the following sections show the indicative financial statement impacts on the State's balance sheet and operating statement of the North East Link Project (Reference Packaging Solution) in accordance with the current and future accounting frameworks and are based on a number of assumptions. Should these assumptions change, it is possible that this will change the financial impact. These are indicative impacts based on estimated SPs derived from Reference Project costings (see Chapter 9) and an indicative financing structure. More accurate financial statement impacts can only be known once contract and financial close have been reached.

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12.4 Budget funding impacts (delivery phase)

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12.4.1 Current accounting framework

Table 12-2 shows the budget funding impact of the North East Link Project, applying the current accounting framework and assumptions outlined in section 12.2.

Table 12-2 Budget funding impact of the North East Link Project – current accounting framework

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12.4.2 Future accounting framework

The table below shows the budget funding impact of the North East Link Project, applying the future accounting framework and assumptions outlined in section 12.2.

Table 12-3 Budget funding impact of the North East Link Project – future accounting framework

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12.5 Estimated operating phase costs

The estimated ongoing funding requirement for the first 12 years following completion of the both PPP and non-PPP works are summarised in the table below.

Table 12-4 Ongoing funding requirements

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13 Risk analysis

This chapter outlines the process used to identify and quantify key project risks. These risks and the allocation of them between the State and the private sector for the different phases of development, delivery and operation of the project is dependent upon the procurement model adopted. This is further discussed in Chapter 11 and Appendix M.

13.1 Key project characteristics influencing risk

The North East Link Project has several defining characteristics that influence its risk profile, including:

- The final design solution of the project will have a significant tunnelling component, which introduces associated geotechnical and construction risks.
- The project will have a very high capital cost, due in part to the tunnelling component, which increases the magnitude of construction risk and introduces risk associated with market capacity and financing of the project.
- Interfaces between North East Link and existing roads on Melbourne's transport network will add complexity to the project's risk profile.

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- The proposed project alignment has elements of both brownfield and greenfield development, which elevates risks around environmental approvals and community/stakeholder concerns with the project.

13.2 Risk assessment methodology

The risk assessment methodology used by NELA to calculate the risk adjusted project cost is compliant with the risk management process outlined in ISO 31000 – Risk Management Principles and Guidelines. This process aligns with DEDJTR's risk management requirements, DTF's High Value High Risk Guidelines and Infrastructure Australia's National Infrastructure Guidelines.

The Concept Design prepared for the purposes of the business case was used as the basis for the scope of the risk assessment process. Further detail about the project scope is provided in Chapter 6.

Standardised probability and impact ratings were used when assessing risks that were quantified (see Table 13-1 and Table 13-2). The probability ratings used during these assessments were sourced from the NELA Risk and Opportunity Management Plan and Procedures. The impact ratings used during the quantification process were generated by the Project Team based on preliminary estimates of capital expenditure and operating expenditure for the assumed Reference Project. Further detail on the scope of the Reference Project is provided in Appendix O.

13.3 Risk assessment process

Due to the significant risks associated with a project of this scale and complexity, a comprehensive project risk assessment has been undertaken as part of developing the business case. This assessment followed four main steps, as described below.

13.3.1 Step 1: Structured risk identification workshop

A series of structured *risk identification* workshops were held with representatives from Transport for Victoria, NELA and DTF, and NELA advisers including Advisian, EY, GHD, SmedTech and Clayton Utz. During these workshops, whole of life project risks from planning through to operations were identified and discussed, based on the proposed Concept Design for the project. Risk mitigation measures were also generated during this process.

A summary of the key risks identified are included in Table 13-4. The risk summary containing the risks identified is included in Appendix O. Note that the risks included in Appendix O are those that affect the *contingent* risk profile of the project. Therefore, the risks in Appendix O are those that have been assessed for the purposes of conducting a financial analysis of the Reference Project. See Figure 13-1 for a breakdown of the scope of project risks into contingent risk and inherent risk.

13.3.2 Step 2: Structured risk quantification workshops

Following risk identification, two sets of workshops were undertaken to *quantify* the risks identified in Step 1:

- Workshops undertaken by the cost estimator, Advisian, with the technical team, to quantify the direct design and construction risks associated with delivery of the project (see Appendix N)
- Workshops with key representatives from Transport for Victoria, NELA and DTF, and NELA advisers including Advisian, EY, GHD, SmedTech and Clayton Utz to quantify project risks not directly covered by the direct design and construction of the project.

Discussions during these workshops focused on the probability of identified risks materialising, the potential cost impact to the project if these risks do materialise and when within the project lifecycle they might occur. The periods of the project across which risks were quantified were defined as:

- Project Development/Pre-Construction
- Design and Construction (D&C)
- Operations and Maintenance (O&M).

During all risk quantification workshops, probabilities and post-mitigation financial impacts were assigned to the identified risks according to the ratings set out in Table 13-1 and Table 13-2.

Table 13-1 Probability definitions

Probability rating	Likelihood of financial impact
Almost Certain	At least 76%
Likely	Between 51% and 75%
Possible	Between 26% and 50%
Unlikely	Between 6% and 25%
Rare	**No greater than 5%**

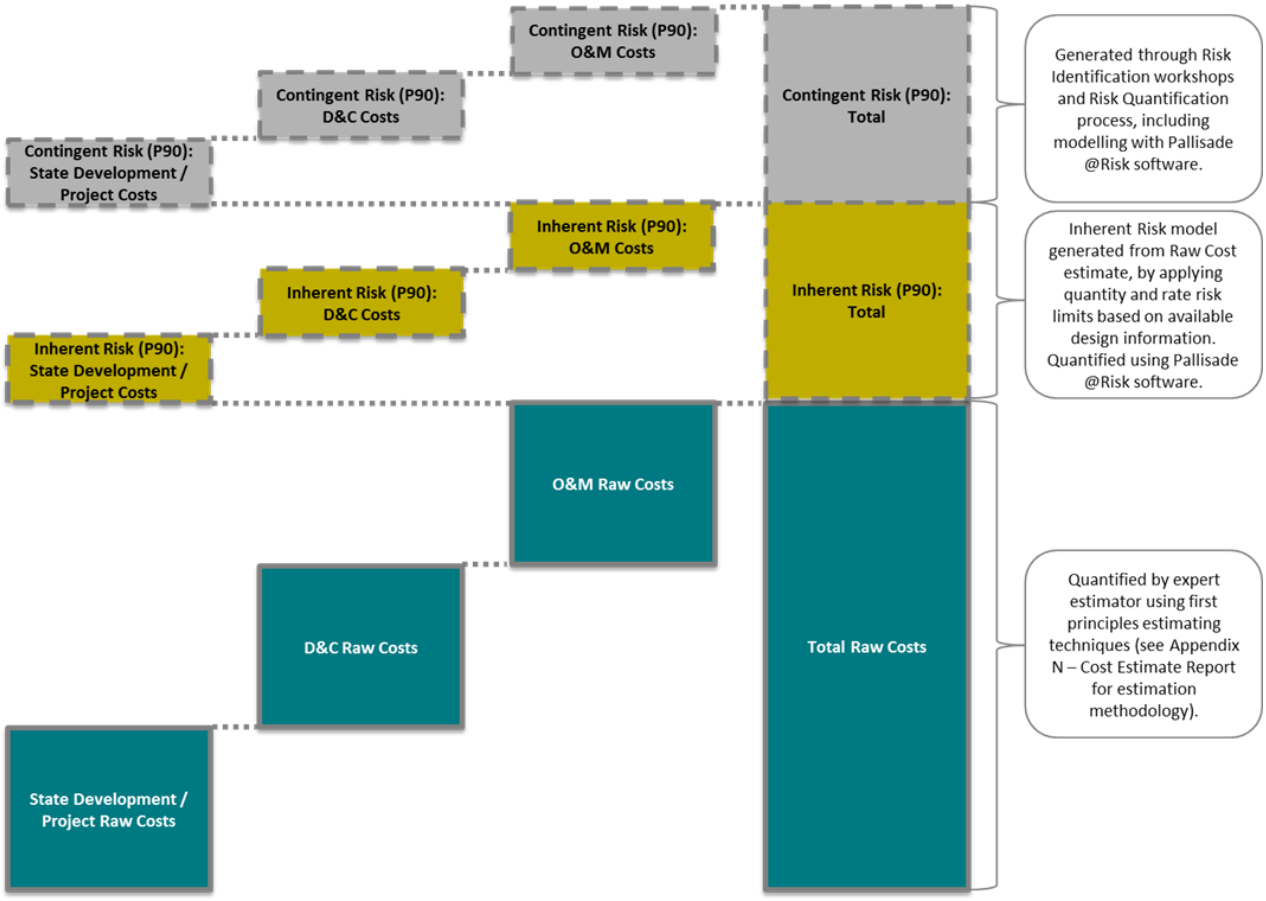
Table 13-2 Impact definitions

Impact rating	Financial impact (Pre-Construction and D&C periods)	Financial impact (O&M period)
Severe	$100 million to $200 million	$2 million to $4 million p.a.
Major	$50 million to $100 million	$1 million to $2 million p.a.
Moderate	$20 million to $50 million	$0.4 million to $1 million p.a.
Minor	$10 million to $20 million	$0.2 million to $0.4 million p.a.
Insignificant	**No more than $10 million**	**No more than $0.2 million p.a.**

Figure 13-1 shows the scope of risk quantification work conducted by the Project Team and how these scope items relate. Regular consultation within the Project Team ensured that there was no overlap between the risks attributed to each component of the project.

The inherent risk adjustment applied to the D&C and O&M periods was quantified separately as part of the base cost estimates. Palisade@Risk software was used to quantify the inherent risk and contingent risk adjustments (see Appendix N for further details). To the extent that any risks identified during the risk quantification workshops were already provided for in the raw cost estimate or inherent risk estimates, this was noted. Moderations to the associated probability and impact assessments were then made accordingly.

Figure 13-1 Waterfall graphic of risk estimation scope



13.3.3 Step 3: Monte Carlo simulation

Following the risk quantification process, Monte Carlo simulation using Palisade@Risk software was performed to generate an estimated value for the contingent risks identified in the project risk summary (see Appendix O). Based on the probabilities and impacts of risk realisation agreed during the risk quantification workshops, this simulation calculated a range of possible financial outcomes for the project. These simulated financial outcomes were aggregated into a single frequency distribution, which formed the basis of the risk quantification for the identified project risks.

The simulated financial outcomes were defined according to the following types of expenditure:

- Capital expenditure (CAPEX) – includes Project Development/Pre-Construction and D&C period risks).
- Operating expenditure (OPEX) – includes O&M period risks.

Once financial outcomes were simulated and placed on a distribution, confidence limits were defined against which the simulated outcomes could be reported. A confidence limit represents the percentage of all simulated values that fall below that limit. For example, a confidence limit of 90 percent represents a value below which 90 percent of all simulated values fall.

Confidence limits at the 50 percent and 90 percent levels were generated for capital expenditure and operating expenditure. These figures, known as P50 and P90 values, represent the dollar value below which 50 percent and 90 percent of the simulated financial outcomes fall respectively.

13.3.4 Step 4: Review

A benchmarking process was undertaken to compare, on a relative basis, the assessed risks to the North East Link Project's CAPEX and OPEX to those of comparable infrastructure projects. This comparison was made by senior members of the Project Team and NELA's advisors to determine whether, in their collective judgement, the amount of risk quantified in the project cost estimates and contingency estimates was adequate and reasonable.

NELA engaged WT Partnership to review the risk assessment methodology used and outputs produced. In its assessment of the risk analysis approach taken, WT Partnership noted that modelled risk outputs were within expected ranges. Notably, WT Partnership also recommended that ongoing risk analysis take place as the project continues to mature to ensure that matured risks addressed through the design development process can be removed and reflected in updated P50 and P90 confidence limits (see Appendix P).

13.4 Risk adjustments

The risk assessment process described above resulted in the determination of P90 risk adjustments during the pre-construction, D&C and O&M periods.

The risk adjustments listed in the table below have been included in the overall cost estimate presented in Chapter 9.

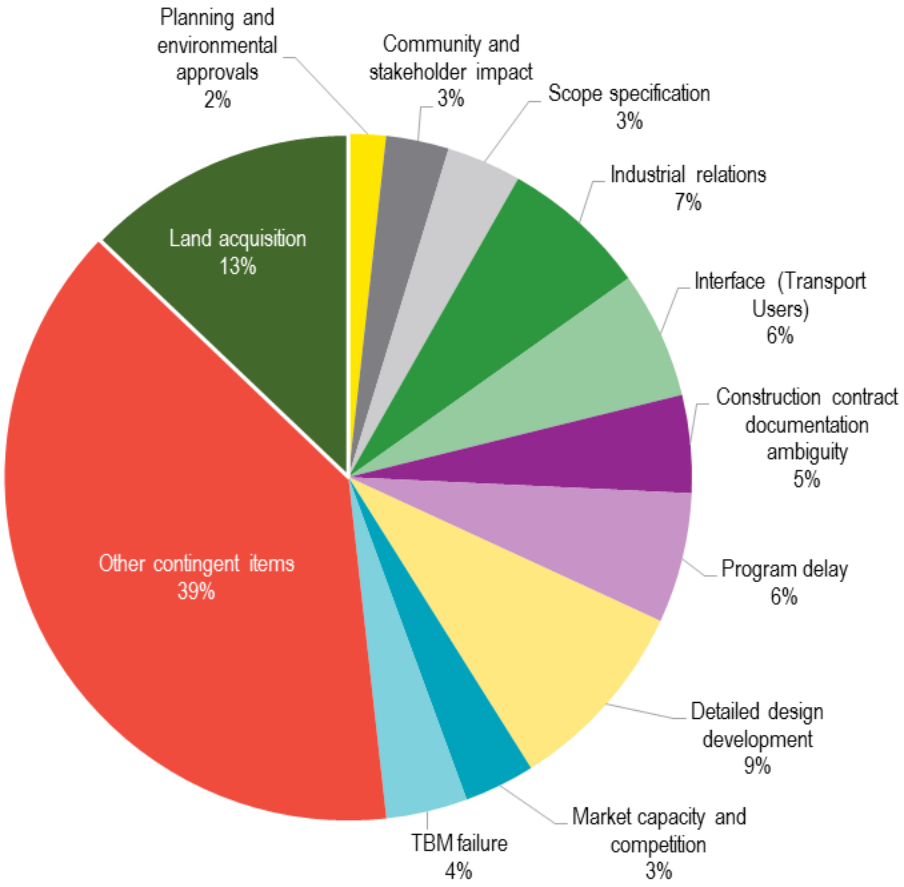
Table 13-3 P90 risk estimates

*	*[1]	*[2]
*[3]	*	*
*	*	*
*	*	*

[1] *Redacted – commercial-in-confidence*
[2] *Redacted – commercial-in-confidence*
[3] *Redacted – commercial-in-confidence*
[*] *Redacted – commercial-in-confidence*

Figure 13-2 shows the risks related to capital expenditure broken down by category. Further detail on key risks can be found in Table 13-4 and Appendix O. Select examples of risks that fall into the 'Other contingent items' category are the risk of the project being underinsured and the risk of inclement weather increasing costs.

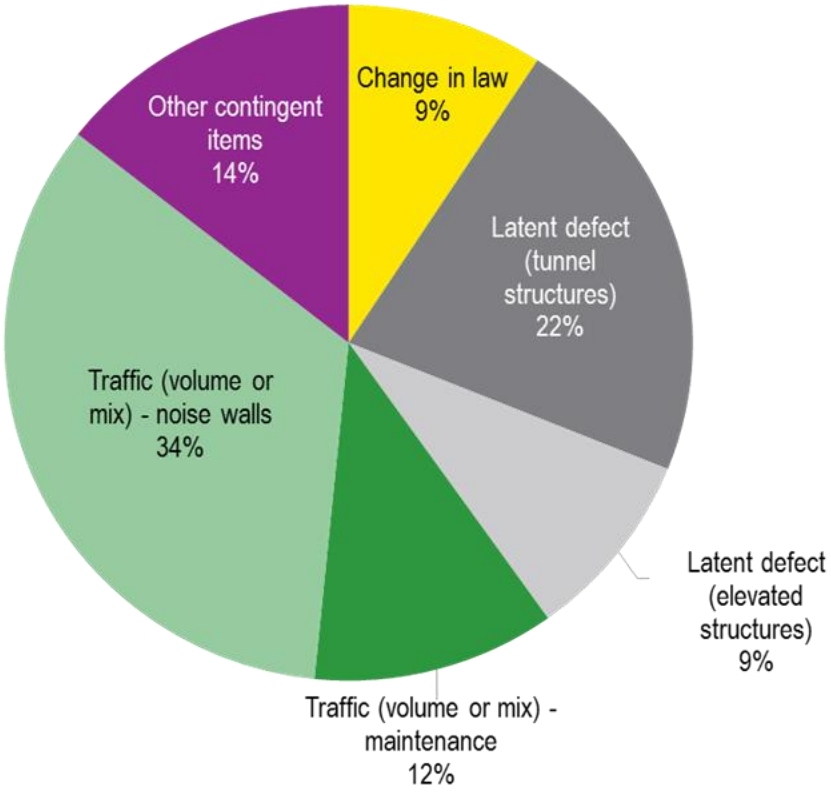
Figure 13-2 Risk by category (percent of quantified risks to capital expenditure[4]



[4] Risk breakdowns based on simple risk calculated in real terms (dollars as at 1 July 2017)

Figure 13-3 shows the risks related to operating expenditure broken down by category. Further detail on key risks can be found in Table 13-4 and Appendix O. Select examples of risks which fall into the 'Other contingent items' category are other types of latent defect not specifically mentioned in the chart, such as defects appearing within the road sub-base or pavement, and risks associated with asset lifecycle costs.

Figure 13-3 Risk by category (percent of quantified risks to annual operating expenditure[5]



[5] Risk breakdowns based on simple risk calculated in real terms (dollars as at 1 July 2017)

13.5 Key risks

The key project risks identified and quantified through the risk assessment process described above are summarised in Table 13-4 below, along with a discussion of the quantification approach to each category of risk.

Table 13-4 Key risks

Category	Risks	Description
Land acquisition	The risk that land acquisition-related cost forecasts determined to at financial close cannot be met The risk that land acquisition is not sufficient to allow optimal project design, deliver the preferred scope or meet project timelines agreed at financial close	Due to the size of the project and length of the preferred alignment, the project will require significant land acquisition. The project is expected to run through both Greenfield and developed areas, which will introduce complexity and cost variability in the land acquisition process.
Planning and environmental approvals	The risk that the necessary planning, environmental and statutory approvals are not obtained in accordance with the timeframe or form agreed at financial close, or do not meet project requirements, potentially resulting in incremental costs and/or timing delays to the project The risk that approvals are delayed or revoked, (for example, legal challenges are raised against granted or pending approvals) potentially resulting in increased costs	Due to the current program, and brownfield and greenfield nature of the project, there are risks associated with gaining the required planning and environmental approvals within the required timeframe.
Community and stakeholder impact risks	The risk of local community / stakeholder opposition to the project, its scope or preferred construction options, may lead to additional stakeholder communications resources being required and delays to project timelines	Due to the greenfield nature of the project and existing environmental, residential and commercial land uses, there is a risk of community and stakeholder opposition to the project.
Market capacity and competition risk	The risk that there is heightened demand in the D&C market The risk of insufficient resources being available in the market to adequately support the project	Due to the number of major projects in the current infrastructure pipeline, the market's capacity for a project of this size is likely to be more restricted.
Scope specification risks	The risk that specification of the project's scope requires amendment due to changes in the State's requirements, potentially resulting in additional scope and increased costs The risk of omitting costs related to complementary and enabling works required to achieve the project's outcomes The risk that the detailed and/or final design does not adequately address the State's project scope requirements, potentially resulting in additional scope and increased costs	Due to the size and complexity of the project, there is an increased chance of scope requirements not being met.
Industrial relations risk	The risk that industrial action or an industrial relations event occurs (may be due to an act or omission by contractor), that potentially affects labour costs and productivity	The risk of industrial action is a key risk event, due to the size of the project.

Category	Risks	Description
Interface risk (transport users)	The risk that there are overly complex interfaces between project construction activities and transport users (road traffic) beyond allowances and those planned, including occupations – potentially causing unexpected project costs	The Reference Project interfaces with the M80 and the Eastern Freeway are likely to present key risks to the success of the project.
Detailed design development risk	The risk of cost and scope increases resulting from detailed design development of the project solution	Due to the size and complexity of the project, there is an increased chance of scope increases resulting from detailed design development of the project solution.
TBM failure risk	The risk of failure / damage to TBM requiring mobilisation of a second TBM	The TBM is a key piece of equipment during the project's construction and may be impacted by unfavourable geotechnical conditions expected within the project alignment.
Change in law risk	The risk that changes to law adversely impact the project, potentially leading to increased costs	Given the long concession period of the Reference Project, a change in law may impact the project's O&M costs. The length of the build period of the Reference Project may increase the likelihood for a change in law impacting the D&C costs.
Latent defect risk (tunnel structures)	The risk of defects in earlier design or construction of tunnel structures becoming apparent during the O&M term, potentially leading to increased O&M costs	Due to the complexity and high capital cost of the tunnel structures, the risk of latent defects is enhanced.
Latent defect risk (viaduct structures)	The risk of defects in earlier design or construction of viaduct structures becoming apparent during the maintenance term	Due to the complexity and high capital cost of the viaduct structures, the risk of latent defects is enhanced.
Traffic risk (volume or mix) – maintenance	The risk that traffic levels are higher than, or vehicle mix is different to, what was anticipated at financial close, thus resulting in increased routine O&M costs	The O&M costs have been developed based on traffic forecasting and concept designs. These costs may increase if traffic levels or vehicle mix is different to what was anticipated at financial close.
Traffic risk (volume or mix) – noise walls	The risk that traffic levels are higher, or vehicle mix is different, to what was anticipated at financial close, resulting in increased road noise beyond regulatory limits that is not sufficiently mitigated by existing noise walls, potentially resulting in increased costs to rectify.	The noise wall design and costs have been developed based on traffic forecasts. These costs may increase if traffic levels or vehicle mix are different to what was anticipated at financial close.
Toll revenue risk[6]	The risk of inaccuracies in forecasting traffic volumes and the risk that underlying assumptions regarding future macro-economic factors that support the long-term traffic growth forecasts are inaccurate.	In terms of quantification, an adjustment for this risk has not been included in the revenue estimate but has been captured in the discount rate.

[6] Toll Revenue Risk has been listed as a Key Risk in the Financial Analysis Report (Appendix M), and has therefore been included in Table 13-44 for completeness. For more information relating to Toll Revenue Risk, refer to the Financial Analysis Report (Appendix M). As Toll Revenue Risk has been captured as part of the discount rate applied to tolling revenue estimates, this risk has not been quantified as part of the process described in this chapter and it is not included in the project risk summary (Appendix O).

13.6 Risk allocation

A key consideration in the State's overall management and mitigation of project risks is the proposed allocation of risks between the State and other parties to the North East Link Project. As such, the procurement options assessment completed as part of this business case has assessed a range of options for how best to allocate risks between the State and the private sector. This approach has remained consistent with the principle of risks being allocated to the party/ies best able to manage or mitigate them at least cost. Chapter 11 outlines the potential procurement approaches and the risks associated with each approach.

Following the Victorian Government's consideration of this business case and in conjunction with the selection of a preferred procurement option, the next phase of work related to project risks will include:

- Finalisation of risk allocation between the State and the private sector following further market sounding and determination of a preferred procurement model
- Updating of the current NELA Risk and Opportunity Management Plan to include a detailed management plan for risks retained by the State under the proposed procurement model.

13.6.1 Risk and opportunity management procedures

NELA has an established set of risk and opportunity management procedures. Under these procedures, all risks and opportunities are reviewed monthly by their respective owners to ensure updated information is included in monthly reporting. The NELA Risk Manager will also review all functional registers every two months to identify additional risks for escalation, beyond those risks that have already been escalated by their respective owners during monthly reviews.

NELA also has an established Risk and Opportunity Management Plan. Under the Plan, DEDJTR requires NELA to report and attest periodically to external stakeholders on its risk and opportunity management. This includes:

- NELA reporting fortnightly to the Coordinator-General
- NELA reporting monthly to the Major Transport Infrastructure Board (MTIB)
- NELA reporting quarterly to the MTIB Audit and Risk Committee
- NELA's CEO attesting bi-annually that NELA has complied with the requirements of the Victorian Government Risk Management Framework.

14 Delivery and implementation

14.1 Overview

Implementing North East Link will require open and genuine community and stakeholder engagement and robust project management, supported by clear governance and legislative frameworks to achieve the Project Objectives and deliver the project in line with the Guiding Principles.

This section details the implementation plan for North East Link, including:

- Governance and project management strategy, including strategies for managing change
- Stakeholder engagement and communications plan
- Timelines and milestones
- Readiness and next steps, including exit strategies.

14.2 Governance

14.2.1 Principles

The governance arrangements for North East Link have been established within the context of foundation principles for public sector governance[1] and project governance. These arrangements aim to:

- Develop and deliver the project through implementation of best practices across relevant disciplines
- Provide a clear separation between infrastructure planning and project approval on the one hand and project delivery on the other
- Make project delivery clearly accountable to government
- Provide robust oversight and stewardship of the project.

14.2.2 Governance framework

The Major Transport Infrastructure Program Governance Framework has been developed to provide a framework for the stewardship of North East Link, in addition to other major infrastructure projects overseen by the Coordinator-General. The framework sets out the terms of reference and guiding principles for the governance structure for all phases of project implementation.

This governance framework ensures that Victoria's major transport infrastructure projects are well coordinated and properly integrated across the transport system. To help achieve this, NELA and Transport for Victoria have documented their respective roles and responsibilities, along with the objectives, scope and other high-level details of the North East Link Project, through a Project Development Brief. The timeframes and budget for project development, planning, procurement and delivery, while subject to Government approval, are also outlined in this document.

The Project Development Brief recognises Transport for Victoria's role in coordinating and planning for Victoria's road and public transport system, and acknowledges Transport for Victoria as the client upon whose behalf NELA has prepared this business case.

[1] Australian Public Service Commission (2007), Building Better Governance, Canberra

To progress development of the project after Government has considered this business case, NELA and Transport for Victoria will develop a Client Requirements Document (CRD) that will specify client expectations and outline the strategic, functional and operational requirements of NELA's next phase of work. The CRD will drive NELA's investigations and assessment of project scoping options and the Reference Design. The CRD will be informed by the statutory planning system, long-term government planning and road use policies, and other relevant planning and transport strategies and principles. The project governance structure is depicted in Figure 14-1 below.

The Head, Transport for Victoria, is the Chair of the Major Projects Steering Committee (MPSC), which is the key forum for making decisions about the project as it progresses. The purpose of MPSC is to ensure that projects are developed in accordance with strategic directions set by Transport for Victoria.

The MPSC includes representation from DEDJTR portfolio agencies (including Public Transport Victoria and VicRoads) as well as from DPC and DTF. It provides a forum for all relevant government agencies to provide oversight of the program's development work and documentation (including the procurement strategy) prior to North East Link being recommended to the Government for funding and delivery. Additional forums have been established to ensure that DTF, DPC, PTV, DELWP and VicRoads are well informed of progress of the business case and have input to solving problems as they arise.

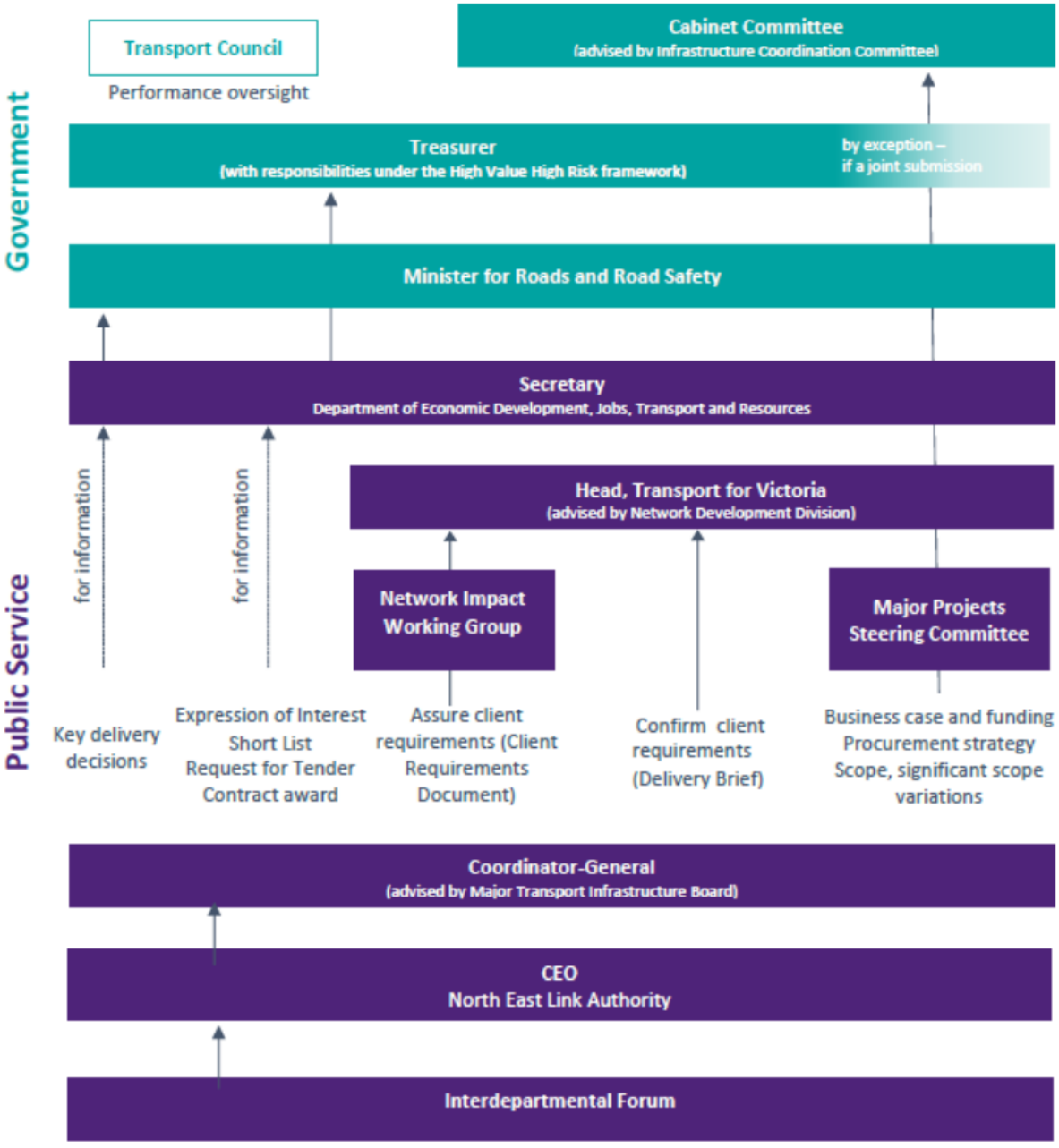
The Network Impact Working Group (NIWG) provides assurance that the specifications of the CRD are met and will ensure that any requirement gaps or scope issues are discussed. Membership of the group will comprise agencies responsible for requirements in the CRD.

The Infrastructure Coordination Committee, chaired by the Secretary, DPC, provides an opportunity to discuss and inform Heads of Departments of project-related matters to be considered by the Government for decision.

An Interdepartmental Forum has been established to provide opportunities for collaboration and discussion across relevant departments.

Ultimately, the Government is required to approve this business case and funding to deliver the project.

Figure 14-1 North East Link governance arrangements



During the project delivery phase, client expectations and the roles of Transport for Victoria and NELA will be documented in the Delivery Brief. Governance of the project will shift to driving performance against key delivery metrics, including safety, program and cost, to deliver the scope approved by the Government.

If issues arise during delivery in relation to budget and/or major scope items or the benefits to be achieved by the project, these matters will be brought back to the MPSC.

MPSC will continue to receive high-level progress briefings and reports throughout delivery of the project.

The Major Transport Infrastructure Board (MTIB), which has been established by the Government to provide advice to the Coordinator-General in the oversight of the major transport infrastructure program, will also play a key role in supporting the delivery of the Project.

Finally, the Transport Council is a forum for the transport Ministers to hold Transport for Victoria and the Office of the Coordinator-General accountable for performance, with a focus on transport system integration and the resolution of interface issues. The Transport Council provides the Ministers with assurance that long-term plans are in place and that enhancements to the transport system are being delivered, providing better outcomes for Victorians.

The following table provides further details about the roles and responsibilities within the North East Link Project's governance framework.

Table 14-1 Governance framework roles and responsibilities

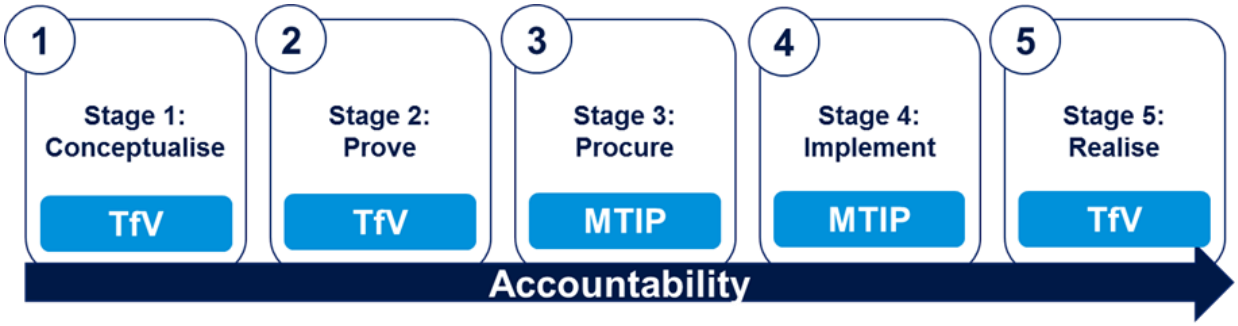
Group	Roles and responsibilities
North East Link Authority (NELA)	An Administrative Office within DEDJTR established to deliver North East Link. The Chief Executive Officer (CEO) of NELA reports to the Coordinator General and is responsible for delivering North East Link.
Coordinator General	The Premier has appointed the Coordinator-General as Head of NELA pursuant to the *Public Administration Act 2004*. The Coordinator-General, Major Transport Infrastructure Program, oversees the delivery of North East Link as one of a suite of significant transport infrastructure projects. The Coordinator-General works collaboratively with members of the Department's Executive Board and other senior staff and undertakes the role of Coordinator-General in accordance with the Victorian Public Sector values and code of conduct.
Transport for Victoria (TfV)	Transport for Victoria is an overarching transport agency that coordinates Victoria's road and public transport system and plans for its future. Transport for Victoria is the client upon whose behalf North East Link is being delivered.
Major Transport Infrastructure Board (MTIB)	The Victorian Government has established the MTIB to ensure effective oversight of its major transport infrastructure program and provide strategic advice and governance support through activities such as: • Objective advice on planning and delivery • Considered assessment of key decisions • Review of contract document • Advice on process.
Major Projects Steering Committee (MPSC)	The Head, Transport for Victoria, is the Chair of the MPSC. The MPSC oversees and endorses the development and procurement plans of key transport projects. It also endorses any project scope or procurement activity that deviates from set development or procurement plans.
Network Impact Working Group (NIWG)	The Network Impact Working Group is a project specific committee established by Transport for Victoria to ensure the requirements of the Client Requirements Document are met. Membership will be made up of delegates from agencies and entities that own requirements within the Client Requirements Document.
Infrastructure Coordination Committee (ICC)	The Secretary, DPC, has established the ICC to provide whole-of-government oversight of major project development and delivery.

14.3 Business case assessment and project procurement

North East Link is subject to assessment under the DTF Investment Lifecycle and High Value High Risk Guidelines and the Gateway Review Process. The five stages of the project's lifecycle are shown in Figure 14-2, with accountability for each stage also depicted. Transport for Victoria has primary accountability for Stages 1, 2 and 5; NELA has primary accountability for Stages 3 and 4.

Specific governance arrangements to support the procurement and implementation of the Project during Stages 3 and 4 will be developed. These arrangements will reflect the requirements of DTF and Transport for Victoria, and will be integrated within the broader governance arrangements outlined in Figure 14-1.

Figure 14-2 Accountability throughout the project investment lifecycle

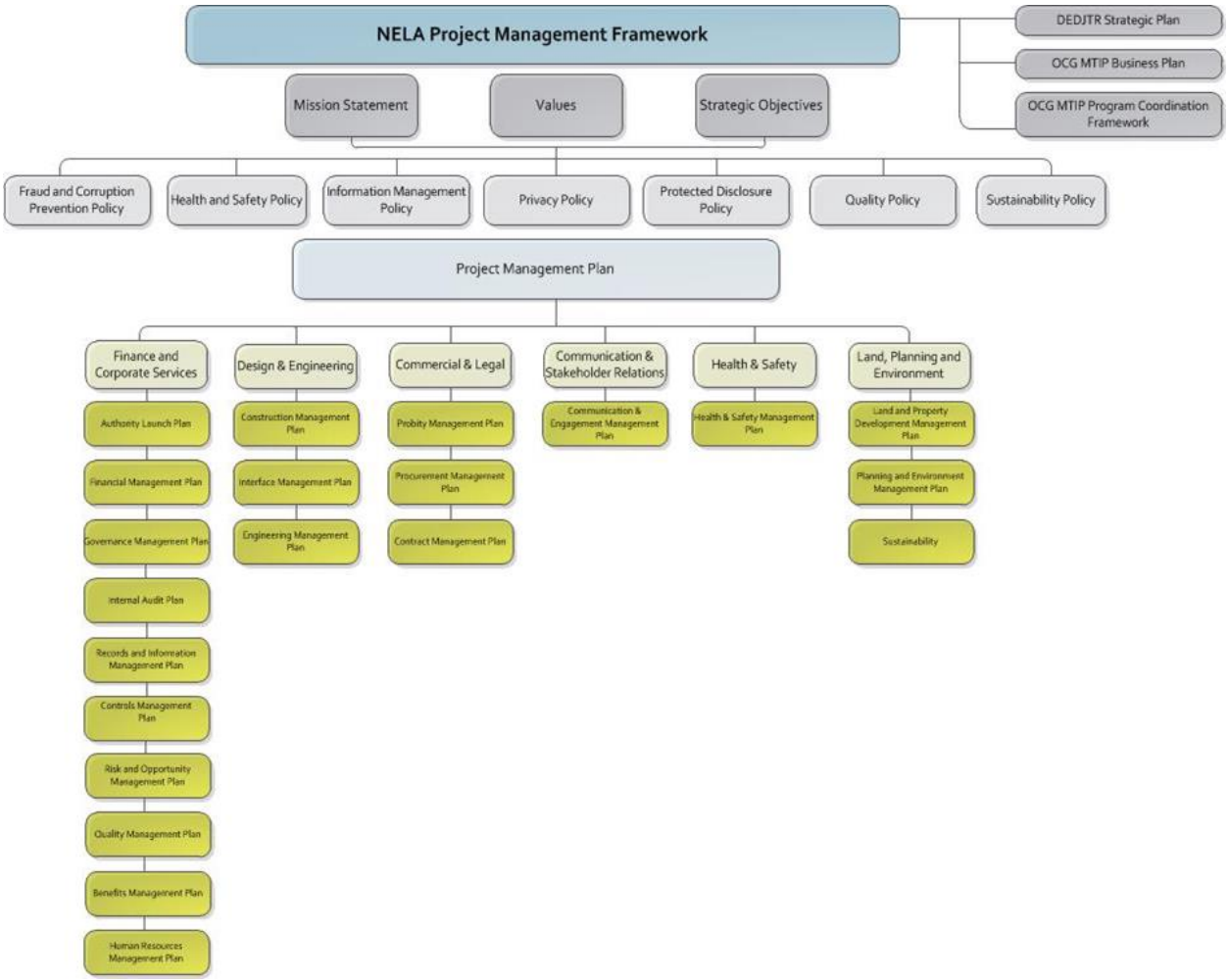


14.4 Project Management Framework

North East Link will be managed in accordance with NELA's Project Management Framework (PMF) as outlined in Figure 14-3. The PMF outlines the principles, plans, procedures and tools to efficiently manage the Program and ensure effective governance.

The PMF will also include a Project Accountability Matrix that outlines the respective roles and responsibilities for NELA and Transport for Victoria in undertaking key project activities. Transport for Victoria will provide NELA with a dedicated Client Representative/Project Manager as a single point of contact to oversee and coordinate Transport for Victoria's key roles and responsibilities.

Figure 14-3 NELA Project Management Framework



14.5 Stakeholder engagement and communication plan

Public participation is essential for achieving high quality outcomes and community and stakeholder acceptance. A Communications and Engagement Plan has been developed to guide all communications and engagement activities for North East Link.

A multi-phase plan has been developed based on the following principles:

- Open communication – being open and honest about project considerations, impacts and opportunities
- Transparency and integrity – sharing information broadly and establishing and maintaining agreed channels for communication
- Collaboration – working to seek mutually beneficial outcomes where feasible
- Inclusion – seeking to identify and involve a broad and diverse range of stakeholders in planning and decisions
- Responsiveness – acknowledging all feedback and demonstrating how and why decisions are being made

- Accountability – actively seeking diverse opinions and perspectives to broaden understanding of views and assist our decisions
- Awareness – communicating broadly to inform on the project and allow for meaningful community and stakeholder input.

Some groups of stakeholders will be better served by a tailored approach to communication and engagement. NELA will prepare specific strategies to provide the best opportunities for involvement by these groups. A detailed account of the proposed Communications and Engagement Plan is provided as Appendix U.

14.5.1 Engagement approach

Figure 14-4 outlines the phased engagement approach that will be adopted to support project milestones and deliverables.

Figure 14-4 Stakeholder engagement – Overview of key phases

Initiation phase (early 2017)

The initiation phase focused on gathering feedback on communication and engagement preferences early in the project to help inform the overall strategy. Activities included identifying stakeholders, market research, building a community profile, meetings with key community groups and identifying opinion leaders.

Phase 1 Establishing a preferred corridor (from mid 2017)

The purpose of Phase 1 was to gather feedback from the community and stakeholders for consideration in options assessment. Key activities included community information sessions, stakeholder briefings, online engagement, initial industry briefing and market sounding. Feedback relevant to later stages of the project, such as construction, has been retained for use at the appropriate time.

Phase 2 EES investigations begin, business case release and Phase 3a Finalise technical reports, prepare EES (early 2018 to late 2018)

Phase 2 and Phase 3a will occur over 2018. These phases will help to further refine and shape the project and provide guidance on the communication and engagement approach and tools. In these phases, key groups will be established (such as a Community Representatives' Forum and stakeholder agency reference groups), engagement with landowners will commence with dedicated property team case managers in place, an information hub may be established and industry briefings on procurement will occur. Information sessions will be held on the EES with participation from environmental and technical specialists. Key activities will include formally contacting and meeting with potentially affected parties, briefing community groups and conducting various forums.

The procurement of North East Link will commence by inviting Expressions of Interest (EOI) from the private sector, followed by a shortlisting process prior to the release of the Request for Proposal (RFP) documentation, as outlined under Phase 3b.

Phase 3b Statutory exhibition, public hearings and procurement (late 2018)

Phase 3b will focus on engaging with the community and stakeholders about the EES documentation, responding to submissions on the EES documentation and addressing the panel's final report and the Minister of Planning's assessment. In addition to continuing the activities from Phase 3a, information sessions will be held to assist with explaining the EES documentation, with participation from environmental and technical specialists. RFP documentation will be released, followed by interactive tender sessions with the shortlisted respondents.

14.5.2 Community feedback to date

As the need for an orbital freeway standard road link through Melbourne's north east has been under consideration since 1969, communities in the area have been engaged and interested from the first government announcement of North East Link in December 2016. Almost 80 percent of the feedback received in the initiation phase indicated support for the options assessment process that resulted in selection of the preferred corridor. Significant issues of community concern are:

- Getting the traffic solution right: making sure North East Link does not create new problems, identifies the right complementary projects and plans the right kind of link.
- 'Future proofing' the solution: North East Link needs to plan for population growth and avoid the need for future upgrades and associated disruptions by building enough lanes now.
- Minimising impacts on communities: the planning of North East Link needs to avoid or minimise impacts on residential properties, businesses and open spaces, parks and schools.
- Minimising impacts on the environment: early planning work for North East Link needs to carefully consider possible environmental impacts on flora and fauna in local areas including protected and endangered species, particularly in the Green Wedge zones.

A range of issues, including localised concerns, may emerge over the life of the project in addition to those outlined above. Identifying key issues and risks, as well as developing mitigation strategies to manage them, is a critical part of the communications planning process and the effective delivery of the project.

A proactive approach will be undertaken to identifying and managing issues and risk, including:

- Use of issues and risk registers
- Building and maintaining constructive relationships with key stakeholders
- Seeking stakeholder and community input at appropriate times throughout the planning, development and delivery of the project.

A detailed report on the outcomes of stakeholder and community engagement provided as Appendix E.

14.6 Delivery

14.6.1 Change management

NELA is responsible for all aspects of North East Link, including planning and development, stakeholder engagement and procurement through to construction and delivery.

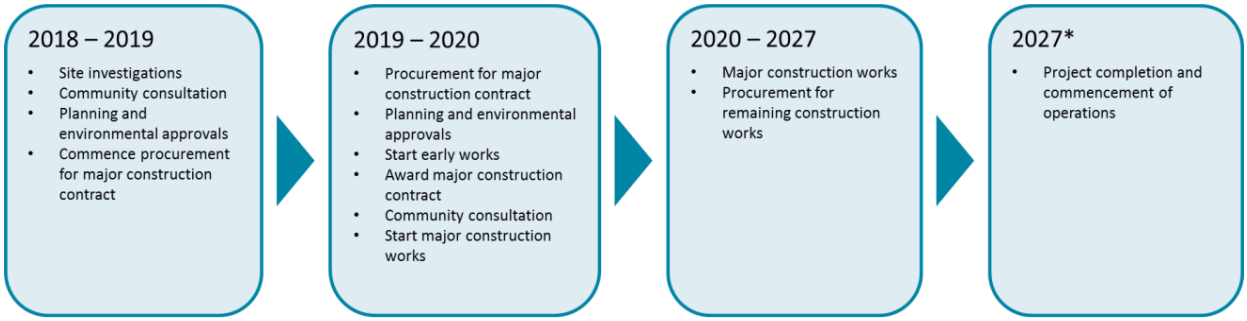
The governance arrangements for NELA are described in section 14.2. Following award of the delivery contract, change management procedures may need to be implemented to deliver the project in accordance with the Project Deed.

On completion of the project, it is proposed that PPP Co will manage operation of the road with the potential to train Victorian Public Service (VPS) staff in the management of the PPP contract and in the management of the State-owned Toll Co.

14.6.2 Timelines and milestones

The indicative timelines to take the project from business case to construction commencement are outlined in Table 14-2. Obtaining statutory planning and environmental approvals are key items on the critical path for implementation of the project in accordance with these timelines.

Table 14-2 Timelines and milestones



*Dependent on planning approvals and final delivery strategy

14.6.3 Readiness and next steps

To progress to the next stage of this project, the following tasks will need to be undertaken immediately by NELA:

- Continuing community and stakeholder engagement
- Technical investigations including further survey and geotechnical work, environmental assessments, utilities investigation and relocation/protection strategies
- Further detailed investigations with respect to potential early works/complementary works/preparatory works packages
- Development of a Reference Design
- Preparation for land acquisition
- Further network impact assessment to fully understand the impact of introducing the project and to identify any further, complementary or network upgrades/changes that should be implemented to maximise desirable outcomes across the entire metropolitan transport network
- Obtaining project planning and environmental approvals
- Preparation for procurement of the project.

This section discusses the next steps for staffing requirements, statutory approvals and property acquisition process, legislation and complementary projects.

14.6.4 Staffing

The number of staff expected to be employed during the development and delivery phases of the project is shown in the table below. No staff are expected to be located in regional areas.

Table 14-3 Staffing impacts

Redacted – commercial-in-confidence

NELA has developed and implemented an on-boarding and induction plan with supporting documents to ensure compliance requirements are met and staff are productive in the shortest period possible.

14.6.5 Statutory approvals

It is proposed that a submission is made to the Minister for Planning to seek declaration of the project as 'public works' under section 3(1) of the *Environment Effects Act 1978* (EE Act), as North East Link could reasonably be considered to be capable of having a significant effect on the environment. If a 'public works' declaration is made under section 3 of the EE Act, an Environment Effects Statement (EES) must be prepared.

An EES under the EE Act assessment process, followed by a Planning Scheme Amendment (PSA) under section 20(4) of the *Planning and Environment Act 1987* (P&E Act), is the preferred assessment and approval pathway for North East Link. The assessment and rationale for selecting the preferred approvals pathway can be found in Appendix V.

The EES assessment process is an assessment process only, with requisite approvals to be obtained from relevant statutory decision-makers following their consideration of the Minister's final assessment (see below). This enables any necessary adjustments to be made to the project before seeking statutory approvals, including adjustments in response to the assessment process and the Minister for Planning's assessment.

Approvals will be coordinated with the EES assessment process. The application for an Environment Protect Authority (EPA) works approval for tunnel ventilation under the *Environment Protection Act 1970* (EP Act) and a PSA will be exhibited concurrently with the EES. A Cultural Heritage Management Plan (CHMP) will be approved prior to obtaining the EPA works approval and heritage permits. The Minister for Planning will appoint an independent panel to consider submissions received and who will make a recommendation to the Minister to inform his final assessment.

The Minister for Planning's final EES assessment will inform key approvals for the project, including:

- A Planning Scheme Amendment (PSA)
- An Environment Protection Authority (EPA) works approval application under the EP Act in respect of any tunnel ventilation system
- An approved CHMP under the *Aboriginal Heritage Act 2006* (AH Act)
- Heritage permits and consents under the *Heritage Act 1995*
- Approvals under the *Road Management Act 2004* (RM Act)
- Licences under the *Water Act 1989*
- Permits and approvals under the *Flora and Fauna Guarantee Act 1988* (FFG Act) and *Wildlife Act 1975*
- Approvals under the *Yarra River Protection (Wilip-gin Birrarung murron) Act 2017*.

Approval from the Commonwealth Minister for Environment and Energy may also be required if North East Link is determined to be 'a controlled action' under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The statutory planning and environmental approvals process is essential to the development and successful delivery of the project and is a key item on the critical path for the implementation of the project (see section 14.6.2). The steps involved in the formal planning approvals process are outlined in Figure 14-5.

Figure 14-5 Planning approvals process

14.6.6 Process for securing project land

Following the Minister for Planning's determination on the approval pathway (assuming an EES) for North East Link, a request will be made to the Premier for declaration of North East Link under section 10(1)(b) of the *Major Transport Projects Facilitation Act 2009* (MTPF Act) for the purposes of project delivery.

The MTPF Act provides for the declaration of transport projects assessed by the Premier as being of economic, social or environmental significance to the state or a region of the state. A declared project can use the streamlined delivery provisions of the MTPF Act, including in relation to temporary access to or occupation of land, as well as land acquisition and assembly.

Declaration under the MTPF Act will enable the principles, requirements and well-established processes under the *Land Acquisition and Compensation Act 1986* (LAC Act) to be adopted as the process to acquire or temporarily occupy land where required for the project.

14.6.7 Legislation

This section outlines the legislative requirements for the Design and Construct (D&C) and Operations and Maintenance (O&M) phase for the project.

D&C phase

Legislative support will be required to facilitate the planning, design and construction of the project.

The EE Act provides a framework for assessment of environmental impacts or effects of proposed projects. The MTPF Act establishes a framework to facilitate the planning and construction of, and land assembly and approvals for, major road projects. There is therefore a comprehensive legislative framework for the D&C phase of the project (and other major transport infrastructure projects) and further legislation is unlikely to be needed.

O&M phase

Road operation and maintenance

The *Road Management Act 2004* (RM Act) provides the principal statutory framework for the operation and management of the road network, and sets out the functions and powers of road authorities.

If the project is to be operated and maintained by a private operator, legislative amendments to the Act will likely be required to:

- Designate the relevant party as the responsible road authority for the various aspects of the project
- Vary the application of the RM Act to the project
- Confer certain functions on the private operator (PPP Co) that would otherwise be performed by VicRoads.

Tolling

In considering the legal framework for implementing a tolling regime, the State's preferred strategy is to implement a legislative framework that would:

- Make it an offence to use the tollway without an arrangement for payment of tolls

- Make the driver of a vehicle used on the tollway liable for the tolls or guilty of a criminal offence if the toll is not paid
- Enable the owner of the vehicle to shift liability to the actual driver
- Give the road operator access to vehicle registration data
- Enable evidence produced by electronic detection technology to be used in civil and criminal proceedings relating to use of the toll road.

In implementing a legislative framework for the project along these lines, a number of options are available. The State could amend existing legislation or enact new, standalone legislation. There are essentially three standalone legislative options available to the State:

- *Redacted – commercial-in—confidence*

- *Redacted – commercial-in-confidence*

- *Redacted – commercial-in-confidence*

A period of 12 to 18 months is a reasonable guiding estimate of the timeframe required for drafting and passing legislation for a tolling solution for the project, *Redacted – commercial-in-confidence*

The State's preference is to have a legislative framework to support electronic collection and enforcement of tolls, road management and maintenance and governance of the O&M phase of the project in place before the road is opened to traffic (at the latest).

14.6.8 Interactions with existing privately operated toll roads

Redacted – commercial-in-confidence

14.6.9 Complementary projects

Public transport, road network, community amenity and infrastructure opportunities to complement North East Link have been identified, as discussed in Chapter 6 and Appendix I. Further work is required to develop detailed proposals, assess and prioritise these projects to seek separate funding approvals. In addition, some of the proposed projects will require separate business cases to seek funding approval. Where applicable, these business cases will be subject to DTF's High Value High Risk assessment process at an appropriate point in the future (depending on the timing for the proposed projects).

14.6.10 Procurement preparation

A range of tasks will need to be undertaken to progress the detailed implementation of the recommended procurement model. To prepare for commencement of the Expression of Interest (EoI) process in 2018, the following tasks will be undertaken in 2018:

- Finalise the optimal packaging solution for the project, in conjunction with the market sounding
- Finalise the project funding and financing strategy, and further develop this strategy
- Develop the commercial framework and principles for the project
- Refine the tolled traffic modelling
- Engage with existing toll road concessionaires
- Undertake the procurement process and project sequencing design, including development of a procurement timetable, continued market engagement, development of EoI and RFP (Request for a Proposal) documentation and appropriate evaluation framework and technical documentation.

14.7 Exit strategy

If the project is not delivered, there may be implications for the Victorian Government's reputation as the expectations of the community and councils will not be met. This outcome would not be aligned with Infrastructure Victoria's 30-year strategy and would impact on achieving Plan Melbourne outcomes in the north east.

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