2

|  |  |  |
| --- | --- | --- |
| **STAGE 2:**  Options Analysis Template  **BUSINESS CASE DEVELOPMENT FRAMEWORK**  Release 3 | | |
|  | |  |
|  |  | |

How to use this template

Queensland Government provides templates to assist stakeholders in developing robust business cases for infrastructure proposals.

This template, its companion guide and supporting supplementary guides include considerations, assessment criteria and checklists to develop an options analysis aligned with the Business Case Development Framework. The contents of these documents are important to ensure the analysis supports a transparent and comparable investment proposal.

**NOTE: This template is offered as a guide only.** Applicable and suitable analysis should be fit-for-purpose considering the proposal complexity and risk, ensuring that rigorous and transparent processes are applied.

The following key content indicators have been included in call-out boxes to help you use this template.

|  |  |
| --- | --- |
|  | Reference |
|  | Target/expectation |
|  | Flag/important to note |

Stage 2: Options Analysis

[Name of proposal]

**[Proposal owner]**

[Choose date]

Proposal summary

|  |  |
| --- | --- |
| Name of proposal |  |
| Location of proposal |  |
| Proposal owner |  |
| Document date |  |
| Proposal description |  |
| Program name |  |
| Program description |  |

Document control

|  |  |
| --- | --- |
| Prepared by |  |
| Role title |  |
| Organisation |  |
| Phone number |  |

Version history

|  |  |  |  |
| --- | --- | --- | --- |
| Version no. | Date | Changed by | Nature of amendment |
| 0.1 | 20/02/2020 |  | Initial draft |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Contents

[Executive Summary 7](#_Toc35449808)

[Recommendation/s for decision-makers 8](#_Toc35449809)

[Section A: Proposal context 9](https://caaqld-my.sharepoint.com/personal/richard_snabel_bq_qld_gov_au/Documents/BQLD%202838%2005_Templates_Options%20Analysis_v1%20(003)%2020200318.docx#_Toc35449810)

[1 Proposal background (A1) 10](#_Toc35449811)

[1.1 Proposal context 10](#_Toc35449812)

[1.2 Review of the Stage 1: Strategic Assessment 10](#_Toc35449813)

[2 Governance and assurance (A2) 11](#_Toc35449814)

[GOVERNANCE 11](#_Toc35449815)

[2.1 Proposal owner 11](#_Toc35449816)

[2.2 Overall approach to the options analysis 11](#_Toc35449817)

[2.3 Steering committee 11](#_Toc35449818)

[2.4 Working group/s 11](#_Toc35449819)

[2.5 Team roles and responsibilities 11](#_Toc35449820)

[ASSURANCE 12](#_Toc35449821)

[2.6 Approach 12](#_Toc35449822)

[2.7 Assurance activities 12](#_Toc35449823)

[3 Service need (A3) 13](#_Toc35449824)

[3.1 Service need statement 13](#_Toc35449825)

[3.2 Stakeholders and stakeholder engagement 13](#_Toc35449826)

[3.3 Current state 14](#_Toc35449827)

[3.4 Benefits targeted 14](#_Toc35449828)

[4 Base case (A4) 15](#_Toc35449829)

[4.1 Approach 15](#_Toc35449830)

[4.2 Base case 16](#_Toc35449831)

[Health Check A 17](#_Toc35449832)

[Section B: Options longlist to shortlist 18](https://caaqld-my.sharepoint.com/personal/richard_snabel_bq_qld_gov_au/Documents/BQLD%202838%2005_Templates_Options%20Analysis_v1%20(003)%2020200318.docx#_Toc35449833)

[5 Options longlist (B1) 19](#_Toc35449834)

[5.1 Options longlist 19](#_Toc35449835)

[6 Options longlist to shortlist (B2) 20](#_Toc35449836)

[6.1 Approach 20](#_Toc35449837)

[6.2 Supporting analysis 20](#_Toc35449838)

[6.3 Filtering analysis 20](#_Toc35449839)

[Health Check B 21](#_Toc35449840)

[Section C: Options analysis considerations 22](https://caaqld-my.sharepoint.com/personal/richard_snabel_bq_qld_gov_au/Documents/BQLD%202838%2005_Templates_Options%20Analysis_v1%20(003)%2020200318.docx#_Toc35449841)

[Approach 23](#_Toc35449842)

[7 Social impact evaluation (C1) 24](#_Toc35449843)

[7.1 Approach 24](#_Toc35449844)

[7.2 Social impact baseline 24](#_Toc35449845)

[7.3 Evaluation 24](#_Toc35449846)

[7.4 Impact summary 25](#_Toc35449847)

[7.5 Additional opportunities 25](#_Toc35449848)

[7.6 Integration 25](#_Toc35449849)

[8 Environmental assessment (C2) 27](#_Toc35449850)

[8.1 Approach 27](#_Toc35449851)

[8.2 Identification of environmental impacts 27](#_Toc35449852)

[8.3 Environmental assessment 28](#_Toc35449853)

[9 Sustainability assessment (C3) 30](#_Toc35449854)

[9.1 Approach 30](#_Toc35449855)

[9.2 Sustainability assessment results 30](#_Toc35449856)

[10 Economic Analysis (C4) 31](#_Toc35449857)

[10.1 Approach 31](#_Toc35449858)

[10.2 Economic benefits 31](#_Toc35449859)

[10.3 Economic costs 31](#_Toc35449860)

[10.4 Cost benefit analysis results and socio-economic narrative 31](#_Toc35449861)

[10.5 Sensitivity and scenario analysis 32](#_Toc35449862)

[10.6 Quality assurance review and results 32](#_Toc35449863)

[11 Financial analysis (C5) 33](#_Toc35449864)

[11.1 Approach 33](#_Toc35449865)

[11.2 Financial analysis 33](#_Toc35449866)

[11.3 Building information modelling 34](#_Toc35449867)

[11.4 Commercial analysis 34](#_Toc35449868)

[11.5 Analysis summary 35](#_Toc35449869)

[12 Affordability analysis (C6) 36](#_Toc35449870)

[12.1 Approach 36](#_Toc35449871)

[12.2 Affordability assessment 36](#_Toc35449872)

[Health Check C1 37](#_Toc35449873)

[13 Options analysis (C7) 38](#_Toc35449874)

[13.1 Approach 38](#_Toc35449875)

[13.2 Analysis summary 38](#_Toc35449876)

[13.3 Preferred option/s 39](#_Toc35449877)

[Health Check C2 40](#_Toc35449878)

[Section D: Preferred option/s implementation considerations 41](https://caaqld-my.sharepoint.com/personal/richard_snabel_bq_qld_gov_au/Documents/BQLD%202838%2005_Templates_Options%20Analysis_v1%20(003)%2020200318.docx#_Toc35449879)

[14 Market considerations (D1) 42](#_Toc35449880)

[14.1 Approach 42](#_Toc35449881)

[14.2 Outcomes 43](#_Toc35449882)

[15 Delivery model analysis (D2) 44](#_Toc35449883)

[15.1 Approach 44](#_Toc35449884)

[15.2 Traditional delivery model assessment 45](#_Toc35449885)

[15.3 PPP delivery model assessment 45](#_Toc35449886)

[16 Next steps (D3) 46](#_Toc35449887)

[16.1 Stage 3: Detailed business case plan 46](#_Toc35449888)

[16.2 Communication plan 46](#_Toc35449889)

[17 Conclusions 47](#_Toc35449890)

[17.1 Outcome of the analyses 47](#_Toc35449891)

[18 Recommendations 48](#_Toc35449892)

[18.1 Viable option/s 48](#_Toc35449893)

[18.2 Recommended actions 48](#_Toc35449894)

[Health Check D 49](#_Toc35449895)

[References 50](#_Toc35449896)

[Appendix 1: Benefits register 51](#_Toc35449897)

[Appendix 2: Risk register 52](#_Toc35449898)

[Appendix 3: Stakeholder engagement plan 53](#_Toc35449899)

[Appendix 4: Multi-criteria analysis 54](#_Toc35449900)

# Executive summary

The executive summary should give the reader a clear and concise overview of all relevant aspects of the Stage 2: Options Analysis proposal.

It should be self-contained, able to be read independently of the full options analysis report and give the reader a clear overview of all relevant aspects of the proposal’s recommendations.

The executive summary should be the last section written when developing the options analysis report. At a minimum, the executive summary should include a coherent and structured discussion of the following:

* the service need and problem/opportunity statements
* the outcomes and targeted benefits
* the identified options (longlist) and assessment criteria used to establish a shortlist
* all assessments and an analysis of shortlisted options (risks, cost, economic, environmental, social, financial, funding, delivery and affordability) to support recommendations
* recommendations for decision-makers.

An appraisal summary table should present the critical information for each of the shortlisted options. An example is provided in Table 1.

Table 1: Appraisal summary table

|  | OPTION x impact description | Summary of key impacts | Quantitative impacts | Qualitative short-term impacts | Qualitative medium-term impacts | Qualitative long-term impacts | Impact/ value |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Environmental** | Short description of the environmental impact/s | Describe the results of the impact | Describe the quantitative assessment of the impact | Describe any qualitative assessment of the impact | Describe the qualitative assessment of medium-term impacts | Describe the qualitative assessment of long-term impacts | Describe the environmental impact risks |
| **Economic** | Short description of the economic impact/s | Describe the results of the impact | Describe the quantitative assessment of the impact | Describe any qualitative assessment of the impact | Describe the qualitative assessment of medium-term impacts | Describe the qualitative assessment of long-term impacts | Net present value (NPV)  Benefit cost ratio (BCR)  Internal rate of return (IRR) |
| **Financial** | Short description of the financial impact/s | Describe the results of the impact | Describe the quantitative assessment of the impact | Describe any qualitative assessment of the impact | Describe the qualitative assessment of medium-term impacts | Describe the qualitative assessment of long-term impacts | $xxm |
| **Social** | Short description of the social impact/s | Describe the results of the impact | Describe the quantitative assessment of the impact | Describe any qualitative assessment of the impact | Describe the qualitative assessment of medium-term impacts | Describe the qualitative assessment of long-term impacts | Describe the social impact risks |

## Recommendation/s for decision-makers

Aspects of the Stage 2: Options Analysis that typically result in recommendations include:

* whether the preferred option/s should progress to Stage 3: Detailed Business Case or finish at this point
* whether the preferred option/s should proceed as a potential public private partnership (PPP)
* the best traditional delivery model for the preferred option/s (recommend this even if the option has been identified as a potential PPP)
* timing of any potential solution, including any urgency or recommendations for delay or staging
* significant issues or risks for decision-makers, if appropriate.

Is the executive summary an appropriate length for government decision-makers?

Does the executive summary outline key aspects of the proposal?

Have you clearly identified all decisions required and any associated implications?

Is the executive summary easy to read and understandable by a range of audiences including policy makers and other government agencies?

Is the executive summary a concise but complete narrative of the proposal? Can it be read as a   
stand-alone document?



Section A:  
Proposal context

1. Proposal background (A1)

This section should give an overview of the concise history and context of the proposal and may include a concise review of the work undertaken in the Stage 1: Strategic Assessment.

* 1. Proposal context

This section should outline:

* when a problem/opportunity was selected for consideration
* when the service need was first identified
* the location of the proposal (include a map)
* the proposal history and context (political and strategic)
* the scope and depth of all relevant investigations and studies including, for example, demand analysis
* a summary of previous decisions, including a review of Stage 1: Strategic Assessment and the options longlist
* any independent assurance processes completed to support Stage 1: Strategic Assessment development (e.g. Gateway reviews).
  1. Review of the Stage 1: Strategic Assessment

Review the Stage 1: Strategic Assessment or output from a Strategic Assessment of Service Requirement (SASR) or Strategic Business Case (SBC) to confirm the service need and targeted benefits.

Outline the options longlist developed at Stage 1: Strategic Assessment.

Document any material changes since the strategic assessment was prepared. Note how the changes have been considered in progressing the investment concept through to Stage 2: Options Analysis.

Has the background to the proposal been outlined concisely?

Have any previous investigations and considerations, including Stage 1: Strategic Assessment, been reviewed and documented?



1. Governance and assurance (A2)

This section should outline the governance and assurance arrangements for the development, assurance and approval for the Stage 2: Options Analysis.

## GOVERNANCE

* 1. Proposal owner

Identify the proposal owner, including a team structure. Outline roles within the team structure.

* 1. Overall approach to the options analysis

Insert a statement of the overall approach taken. Include a proposal development governance diagram.

* 1. Steering committee

Outline the project steering committee, the terms of reference and membership including, if appropriate, the role of Queensland Government.

* 1. Working group/s

Outline the proposal working group and its membership, including the role of Queensland Government, if appropriate.

* 1. Team roles and responsibilities
* Agency team
* Contractors.

Table 2: Example roles and responsibilities matrix

| Name | Roles | Responsibilities |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

## ASSURANCE

This section should give an overview of the assurance activities undertaken for the options analysis. It helps to ensure that, before completing the proposal for Gate 1 Assurance Review, the analysis is complete, reliable, comparable, transparent and clearly identifies ownership. Independent peer review of key assessments are undertaken in the options analysis e.g. options filtering, demand analysis, economic analysis, cost and risk, financial and commercial assessments.

* 1. Approach

Describe the approach used to develop the assurance plan and any approvals.

* 1. Assurance activities

Describe the assurance activities undertaken.

#### Assurance activities aim to improve the efficiency and effectiveness of a proposal and raise the quality of its analysis, outputs, conclusions and recommendations.

#### Have you considered the following when completing this section?

* Engaged specialist reviewers for both the approach and content of the document
* Undertaken the following reviews:
  + peer and technical review of the data, supporting assumptions and modelling analysis to ensure it is valid, reliable and accurate, and the analysis supports identification of the service need and expected benefits
  + executive reviews for the proposal
  + focused technical reviews (i.e. in response to an identified or perceived issue).
* Consider undertaking a Gate 1 Assurance Review for the proposal.



1. Service need (A3)

This section should clearly explain the service need (problem and/or opportunity) or the demand to be addressed.

If a Stage 1: Strategic Assessment using the Stage 1: Strategic Assessment Guide has been completed previously, undertake a review on the problem identified in the targeted benefits sections. Update, reconfirm and document them in this section. This is important if significant time has lapsed since you prepared the Stage 1: Strategic Assessment. Include a copy of the investment logic map (ILM), if you prepared one.

If you did not prepare a Stage 1: Strategic Assessment using the Stage 1: Strategic Assessment Guide, we recommend that you undertake the work outlined by the Stage 1: Strategic Assessment and capture the results in this section.

* 1. Service need statement

Document the service need, its context and characteristics:

* In your statement about the service need address the two main elements:
  + the problem/opportunity and how it is evolving
  + why the problem/opportunity needs to be addressed now.
* The definition of the service need and supporting analysis should capture:
  + the root causes of the problem and effects, noting how they are expected to change over time (worsen or improve)
  + evidence to show whether changes in service demand (current or anticipated) will affect the problem/opportunity
  + an outline of the rationale for why the service need requires to be addressed
  + risk and uncertainty, including climate change—this is especially important for very large investment proposals that have used forecasting to determine the service need
  + assumptions used for any projections or modelling
  + details of the timing and extent of the problem/opportunity that needs to be addressed
  + the geographic and demographic reach of the service need, including relevant maps and supporting graphics
  + details of the stakeholders.
* Include details of any relevant planning works or feasibility studies you have undertaken (previous and ongoing), noting their scope, depth and results. (Include a copy of these documents or links to them).
* Include details of how the service need aligns with relevant strategic initiatives, regional and local plans, and the State Infrastructure Plan. If the investment proposal is likely to seek the involvement of Infrastructure Australia, explain any matters of national significance.
* Include a summary of any related proposals and their potential impact on the benefits to be achieved from the options, noting any potential opportunities for integration or coordination.
* Include any additional proposal objectives.
  1. Stakeholders and stakeholder engagement

Document stakeholder information for the preferred option/s.

Information in this section should include:

* Stakeholders’ details—who they are, why/how they are interested, and the extent of their interest or influence
* Stakeholders’ needs and expectations—both process and outcome—noting any needs or expectations that are mandatory
* the most appropriate engagement mechanism for each stakeholder or stakeholder group i.e. inform, consult or active participation
* any risks of engaging (or not engaging) with stakeholders and how these risks should be managed
* any conflicts or opportunities for collaboration between stakeholders.

Risks relating to stakeholder engagement should be included in the risk register and should guide any modifications to stakeholder engagement activities. A stakeholder engagement plan should be included as an attachment to the Stage 2: Options Analysis.

* 1. Current state

Document the current state and describe the conditions currently affecting the service need. This gives a baseline from which the reader can understand the potential changes if the proposal goes ahead.

Documentation may include:

* the stakeholders’ experience
* the physical condition of the infrastructure
* performance issues
* potential future state, including climate change
* whole-of-life, whole-of-system implications
* discussion of:
  + the need for government intervention
  + implication of time delays
  + policy changes
  + changes in the proposal environment
  + any concerns about the relevancy of data used in previous bodies of work i.e. Stage 1: Strategic Assessment.
  1. Benefits targeted

To communicate the benefits targeted/sought by addressing the service need, document:

* the intended outcome/s for the options and the targeted benefits
* the stakeholders who may be affected or able to help achieve the intended outcomes
* likely beneficiaries and their potential needs and expectations
* an indication of any benefits that may be more highly regarded than others
* any assumptions that underpin the targeted benefits
* any dependencies that have been identified
* an indication of how critical the intended outcomes and benefits are
* any conflicts or opportunities for collaboration between stakeholders
* potential disadvantages and risks to achieving the benefits (include this information in the risk register).

Details of targeted benefits should be included in the benefits register, see Appendix 1, and included as an attachment to the completed options analysis.

1. Base case (A4)

This section should outline the base case that will form the benchmark against which all the options will be assessed (along with alignment to the service need).

The underlying principle of any base case is that it represents a realistic, practicable or workable assessment of the business-as-usual (BAU) state of the world. The base case should:

* be tightly specified and modelled on a whole-of-life, whole-of-system, whole-of-state basis
* consider how to maintain specified service levels provided by existing infrastructure
* account for any actions that will be needed in future to ensure service levels are reasonably maintained, including full life cycle costs needed to maintain those levels.
  1. Approach

**Have you considered if the base case is reasonable, clearly defined and aligns with complementary guidance documents?**

* The base case should be aligned to contemporary developments e.g. environmental or operating changes (legal, regulatory or policy). The base case should also be refined to fully reflect expectations, including projected demand profiles.
* Significant inputs for a base case will originate from the service need assessment (nature and composition of demand), the benefits analysis and from the previous stage of development (Stage 1: Strategic Assessment).

Elements in common across the base case:

* Includes full life cycle benefits and costs, including any actions that will be needed in future to ensure the asset can operate at the relevant service levels.
* Should be consistent with the key assumptions (e.g. evaluation period, population and other forecasts) in all options
* The costs and disadvantages of the problem should, to the extent possible, be expressed in money terms for the cost benefit analysis (CBA) and the financial and commercial analyses.



* 1. Base case

A well-articulated base case:

* gives decision-makers information on what the situation will be without the proposal, program modification, policy change or initiative being proposed
* documents how the base case has been developed and refined from earlier stage analysis
* provides a full description of the expected performance of the existing asset, program or policy setting
* includes current operational practice and other related assets e.g. the operation of multiple dam assets in tandem operating regimes
* highlights the ongoing effects that would reasonably be expected or forecast to occur
* describes the implications of not undertaking any additional change to the existing asset, program or policy setting
* gives a basis to compare the additional performance or changes targeted by the options.

# Health check A

Before progressing with the Stage 1: Options Analysis, complete the following checklist.

| # | Have you completed the following tasks? | Section | Completed |
| --- | --- | --- | --- |
| 1 | Documented the proposal background | A1 |  |
| 2 | Reviewed SASR/Stage 1: Strategic assessment/strategic business case/ and/or other previous work | A1 |  |
| 3 | Documented any material changes since the SASR/Stage 1: Strategic Assessment was completed | A1 |  |
| 4 | Documented governance and assurance arrangements | A2 |  |
| 5 | Documented service need (noting any changes since the Stage 1: Strategic Assessment) | A3 |  |
| 6 | Identified stakeholders and had the engagement approach approved and documented (if not previously completed) | A3 |  |
| 7 | Documented targeted benefits (noting any changes since the Stage 1: Strategic Assessment) | A3 |  |
| 8 | Documented the longlist developed in the Stage 1: Strategic Assessment (if not, develop a longlist in alignment with the *Stage 1: Strategic Assessment Guide*) | A3 |  |
| 9 | Defined the base case | A4 |  |
| 10 | Updated the benefits and risk registers (Appendices 1 and 2) | Appendices  1 and 2 |  |
| 11 | Included all sources of evidence underpinning the service need, base case or options in the reference list for the Stage 2: Options Analysis | References |  |
| # | Critical decision points |  |  |
| 1 | Has the service need been reviewed to check that it remains up to date? |  |  |
| 2 | Is the proposal still valid considering any changes to the general environment, demand data or the implementation of other programs/initiatives since a Stage 1: Strategic Assessment was completed? |  |  |

Section B:  
Options longlist to shortlist

1. Options longlist (B1)

This section provides information around how the options are further refined to a shortlist. Importantly, consider how fully each option meets the service need. The information should give clarity and a shared understanding of the range of options being considered, and the confidence that the recommended options will deliver the targeted benefits.

If you have not generated options or completed a Stage 1: Strategic Assessment, this should be completed according to the guidance in the *Stage 1: Strategic Assessment Guide* before progressing with this section.

* 1. Options longlist

Document the longlist options, including:

* description of each option
* outcomes and benefits to be achieved
* infrastructure and non-infrastructure requirements
* stakeholders affected or required
* infrastructure and non-infrastructure requirements noting the option type/s in accordance with the State Infrastructure Plan hierarchy
* timeframe
* scalability
* potential disadvantages and risks.

The options longlist should include all types of options outlined in the State Infrastructure Plan Part A options hierarchy including:

* reform—improving service performance through an amendment of existing institutions and laws
* better use—improving service performance by influencing demand i.e. not building new capacity
* improve existing—improving service performance through relatively low cost capital works (compared to new) that enhance the existing infrastructure
* new—construction of new infrastructure.

Full details of the longlist options should be included as an attachment to the Stage 2: Option Analysis. A summary of the options should be included in the body of the options analysis report. Give a detailed description of each option to ensure the decision-maker has a broad understanding of the options’ features. The detailed description should include (where relevant):

* service capacity
* service provider
* service level
* service hours
* operating model.

1. Options longlist to shortlist (B2)

In this section, apply filtering and processes to move the longlist options generated at Stage 1: Strategic Assessment to a shortlist of options based on defined assessment criteria and alignment to the targeted benefits and service need.

* 1. Approach

Describe the approach used to shortlist options. Your initial approach to filtering options should assess the longlist against key considerations such as:

* the service need and benefits targeted
* alignment to strategic objectives and policies
* legal and regulatory considerations
* public interest considerations
* strategic, political and integration risks.
  1. Supporting analysis

Document any supporting analysis undertaken before applying the longlist filter, including analysis in the following areas:

* benefits targeted
* service need
* strategic considerations (strategic alignment, policy issues)
* legal and regulatory consideration (legislative issues, regulatory issues, other legal matters)
* market considerations (market feedback, assessment of market capability)
* public interest considerations (public access and equity, impact on stakeholders, consumer rights, safety and security, privacy)

These considerations will continue to inform Stage 2: Options Analysis beyond the longlist filtering stage.

* 1. Filtering analysis

Document a robust and defensible process for filtering the longlist of options to a shortlist. Sample tables for performing multi-criteria analysis are included in Appendix 4. See *Stage 2: Options Analysis Guide* for additional guidance.

# Health check B

Before progressing with the Stage 2: Options Analysis, complete the following checklist. If an item has not been completed, include an explanation in the relevant section*.*

| # | Have you completed the following tasks? | Section | Completed |
| --- | --- | --- | --- |
| 1 | Documented the strategic alignment, policy, legislation and regulations that may affect options (or vice versa) | B2 |  |
| 2 | Considered and documented public interest impacts of the options | B2 |  |
| 3 | Documented strategic considerations | B2 |  |
| 4 | Amended or discarded options in light of the high-level considerations | B2 |  |
| 5 | Filtered longlist options in a robust and defensible manner to a manageable number | B2 |  |
| 6 | Updated the benefits register. See Appendix 1 | Appendix 1 |  |
| 7 | Updated the risk register considering Section B analysis | Appendix 2 |  |
| 8 | Updated the stakeholder engagement plan. See Appendix 3 | Appendix 3 |  |
| 9 | Included all sources of evidence underpinning the service need, base case or shortlisted options in the reference list for the options analysis | References |  |
| # | Critical decision points |  |  |
| 1 | Have any strategic, legal/regulatory, market or public interest considerations been identified that could result in the shortlisted options not proceeding? |  |  |
| 2 | Are the options still valid considering any changes to the general environment, demand data or the implementation of other programs/initiatives since the Stage 1: Strategic Assessment was completed? |  |  |
| 3 | Are any of the assessments affected by optimism bias? |  |  |
| 4 | Is the proposal subject to optimism/momentum bias? |  |  |

Section C:  
Options analysis considerations

Section C should present the key analysis you have conducted to support your evaluation and filtering of the shortlisted options. It will inform the selection and recommendation of the preferred option/s.

A summary of the filtering process is shown Figure 1.

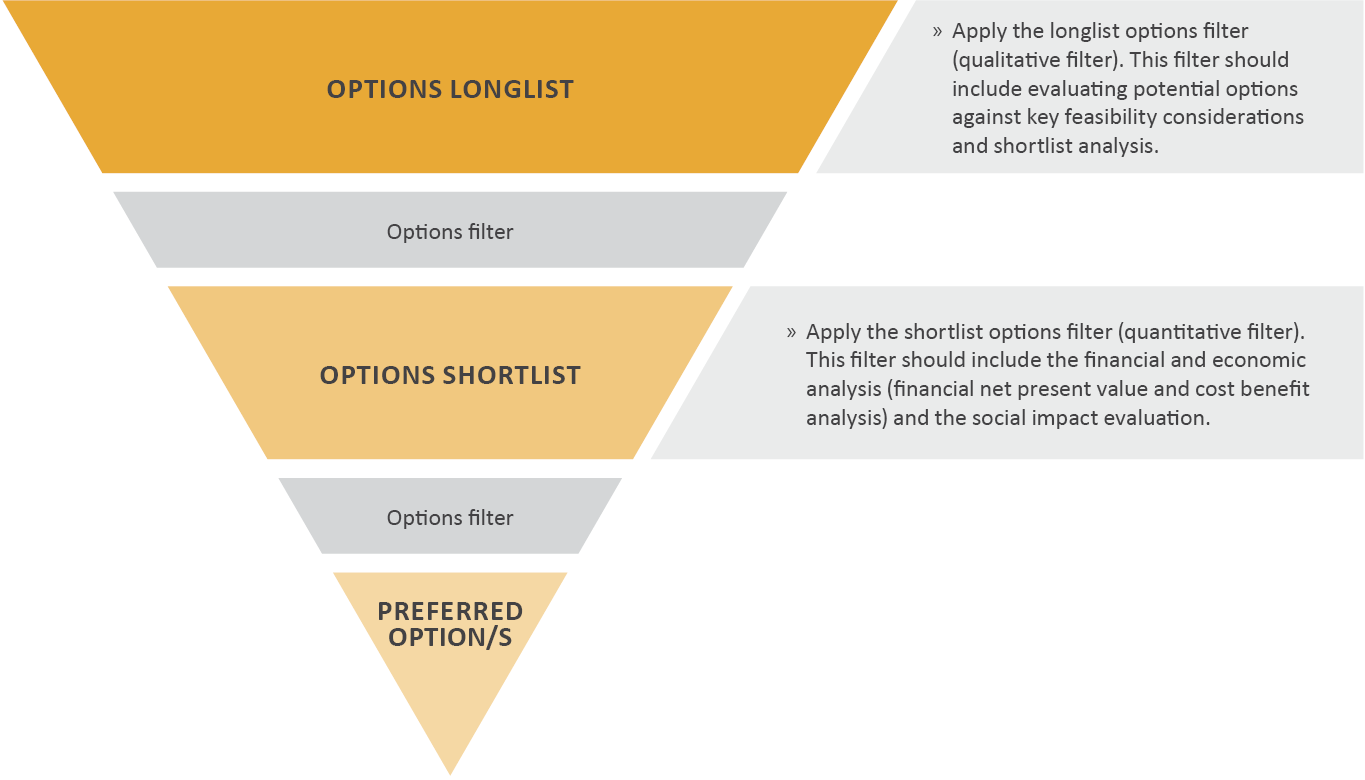


Figure 1: Filtering options

Apply a more detailed quantitative and qualitative filter to evaluate the options shortlist to determine the viability of the preferred option/s should the proposal progress to the Stage 3: Detailed Business Case.

The options shortlist should contain the highest-ranking options from the options longlist analysis.



## Approach

Document your approach to assessing and filtering the options shortlist based on the following criteria:

* social impact evaluation
* economic analysis and cost benefit analysis (CBA)—benefit cost ratio (BCR), incremental BCR, internal rate of return (IRR) and net present value (NPV)
* environmental assessment
* financial and commercial analysis
* affordability and delivery analysis
* sustainability assessment.

This analysis will reveal whether the shortlisted options are viable solutions to be considered by a decision-maker for investment.

1. Social impact evaluation (C1)

This section should identify and evaluate potential social impacts that are expected to arise for each of the shortlisted options.

Complete the social impact evaluation (SIE) before the economic, sustainability, environmental and financial analyses as it provides valuable input for those assessments.



* 1. Approach

Document the approach you used for the social impact evaluation (SIE) including any limitations and assumptions. A specific approach for undertaking an SIE can be found in the Social Impact Evaluation Guide.

* 1. Social impact baseline

Document the social impact baseline, which will be the point of reference for social impact evaluations relevant to each of the shortlisted options.

Table 3: Stakeholder impact

| Stakeholder | Baseline | Impact of option | Impact during construction |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

* 1. Evaluation

Document social impacts in comparison to the social impact baseline for each of the shortlisted options. Where appropriate, the social impacts for different options can be grouped.

Include the entire table from the SIE Microsoft Excel Tool (Appendix 2 in the Social Impact Evaluation Guide).

* 1. Impact summary

Include narrative, tables or radar charts to illustrate the following.

Table 4: Impact of the proposal: Option x

| Stakeholder | Baseline | Impact of option | Impact during construction/implementation |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |

Table 5: Negative impacts and their mitigation: Option x

| Impact | Change | Outcome |
| --- | --- | --- |
| During implementation | | |
|  |  |  |
|  |  |  |
| During operations | | |
|  |  |  |
|  |  |  |

* 1. Additional opportunities

List any additional opportunities that could be implemented to create additional social value.

Table 6: Additional opportunities

| Impact | Impact (with option) | Proposed enhancement | Optimal impact |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

* 1. Integration

Document how the social impacts have been incorporated into the economic, financial, risk, benefits and delivery analyses.

Table 7: Integration

| Impact | Element/mitigation | Integration within option |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Have you considered whether the identified social impacts can be quantified and monetised? If so, are these incorporated into the CBA and have all remaining risks been assessed through an impact risk assessment?

Where appropriate, have you documented a social impact risk assessment matrix for the proposal?

Have you documented the appraisal summary table (AST), which incorporates social impacts, in the options analysis report?



1. Environmental assessment (C2)

This section should identify the environmental impacts arising from the shortlisted options to ensure they are clearly accounted for in the decision-making process.

* 1. Approach

Document your approach including:

* identifying and reviewing information from relevant previous studies
* identifying all potential environmental issues and effects
* conducting a desktop assessment of how environmental issues may affect the options.
  1. Identification of environmental impacts

For each shortlisted option, identify and categorise the relevant environmental considerations and impacts. Table 8 outlines potential environmental considerations. At Stage 2: Options Analysis, the level of analysis should focus on any critical issues that may affect the viability of the option.

Table 8: Identifying environmental impacts

| Aspect | Considerations |
| --- | --- |
| Legislation and permit requirements | * Identify and consider the impact of any legislative obligations and approvals required. * Calculate high-level costs and time needed to meet each requirement. |
| Planning and land use | * Review current land uses. * Consider potential changes to land use that may occur during construction and operational phases of the options (where appropriate). * Describe the degree of alignment to relevant plans and how the option contributes to (or fails to contribute to) any environmental schemes. |
| Property impacts | * Identify and describe any impacts to public and private property (if not already noted in Section 7.4). |
| Topography, geology, and soils | * Consider sediment and erosion control management. * Identify relevant matters in the environmental management register and contaminated land register. |
| Water quality | * Consider both surface water and ground water protection. * Give information on any existing management strategies as well as proposed infrastructure. * Describe strategies to manage current or potential water quality issues. |
| Hydrology | * Undertake high-level hydrological and hydraulic investigation, analysis and assessment of any infrastructure options to help refine the design, and give input for detailed planning and costing. |
| Flora and fauna | * Describe important flora and fauna (including aquatic flora and fauna if relevant). * Identify strategies for habitat management. * Consider habitat connectivity. * Consider weed management implications. * Consider remnant vegetation management implications. * Consider storm water management implications. |
| Climate and air quality | * Consider potential effects of climate and seasonal variations on the option’s design and delivery. * Assess potential impacts and strategies to managing air quality during the option’s delivery. |
| Climate change risk | * Consider and describe how each option may affect or be affected by climate risks. |
| Noise and vibration | * Assess potential impacts and strategies for managing noise and vibration issues during delivery. * Assess potential impacts and strategies for managing noise and vibration issues after delivery (if appropriate). |
| Natural resource management and use including energy and water | * Identify and consider the impact of options on natural resource use including energy and water * Develop strategies for natural resource management including energy and water use during and after delivery. |
| Landscape and visual amenity | * Describe material impact of the options on visual amenity. * Identify strategies to respond to issues relating to visual amenity and landscape integrity during and after delivery. |
| Cultural heritage | * State if any of the affected places have known or potential historical or Indigenous significance. * Develop strategies for managing any potential impact on cultural heritage. |
| Waste management | * Consider how to manage waste during delivery and operation. |

* 1. Environmental assessment

Any environmental impacts that cannot be avoided, mitigated or offset should then be assessed and captured in economic or financial analysis. These residual environmental impacts can be divided into three assessment categories and managed differently (Table 9).

Table 9: Relationship between environmental impacts and approach

|  | relationship between environmental impacts and approach | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
|  | | QUALITATIVE | Quantified | Monetised | Include in | Approach |
| Environmental impacts | |  |  |  | Cost benefit analysis (CBA) | Do no repeat a monetised value in the environmental assessment if it has been included in the CBA |
|  |  |  | Quantitative environmental assessment | Include unit of measure |
|  |  |  | Qualitative environmental assessment | Describe impacts in detail |

Summarise the environmental impacts of each option (Table 10).

Table 10: Environmental impact assessment summary for options

| Environmental Impact Assessment: OPTION x | | |
| --- | --- | --- |
| Impact identified | Description of impact | Evaluation approach  (CBA/quantitative impacts/ qualitative impacts) |
| Impact 1 |  |  |
| Impact 2 |  |  |
| Etc. |  |  |

Make note of any effects on benefits and any emerging problems, adjusting the commentary for shortlisted options. Environmental considerations can also be material considerations for filtering the options (longlist to shortlist). Update the stakeholder engagement plan, benefits register, and risk register if needed.

1. Sustainability assessment (C3)

The sustainability assessment should consider the design, construction applications and operational arrangements of an option to ensure it optimises governance, environmental, social and economic outcomes.

* 1. Approach

Describe how the sustainability assessment was undertaken for each option as outlined in C3: Sustainability Assessment, in the Stage 2: Options Analysis Guide.

* 1. Sustainability assessment results

Document the sustainability assessment results for each option and identify differences between options as outlined in Appendix 1 of the Stage 3: Detailed Business Case Guide.

1. Economic analysis (C4)

This section should develop a robust and transparent Cost Benefit Analysis (CBA) for the options to inform a robust and defensible options analysis. It should also create a logical socio-economic narrative of the economic merit of the proposal and options. This needs to incorporate qualitative and quantitative cost and benefit information and analyses from the social impact evaluation (SIE) and the CBA.

When completing the economic CBA assessment, incorporate the considerations, requirements and health check as outlined in the Cost Benefit Analysis Guide*.*

* 1. Approach

Outline the methodology and approach you have adopted for the economic analysis for each of the shortlisted options, as outlined in Section 4.1. This should be highly detailed, transparent and include reference to:

* base case and central case incorporating risk including climate change
* assumptions underlying the analysis e.g. key economic parameters, demand assumptions and analysis modelling assumptions
* key inputs e.g. costs, demand modelling and forecasting assumptions, and key analytical observations e.g. elasticity of demand
* detailed description of the base case and the analysed options
* any data limitations and benefits that cannot be monetised, and sensitivity and scenario analysis.

Include the peer review report from the independent peer review in this section.

* 1. Economic benefits

Document the positive economic impacts for each of the options with reference to the social impact evaluation (SIE), sustainability assessment and environmental impact assessment. All benefits should be monetised unless it is clearly not practical to do so. Clearly highlight differences in quantitative and qualitative economic benefits between options.

Present key benefit streams, such as improved service, increased productivity, or reduced costs, separately in a table or graph. Include the headline figures, as well as valuation of all benefit categories.

Benefits that cannot be monetised should be included in the SIE and considered further in the economic analysis narrative.

* 1. Economic costs

Document the economic costs of the options. For significant infrastructure proposals, the relevant costs are likely to be the full economic cost of providing the associated services over the life cycle of the option. For these proposals, the full economic cost should be calculated (including reductions in benefits during the construction period). This includes direct and indirect costs, and attributable overheads.

Summarise key costs in a table under specific cost categories. Attach a clear outline of these costs on a year-by-year basis.

* 1. Cost benefit analysis results and socio-economic narrative

For each of the shortlisted options, summarise the results of the cost benefit analysis, including a description and discussion of the incremental net benefits and costs (as outlined in the Cost Benefit Analysis Guide e.g. NPV and BCR). Provide results in the form of a detailed table. Give a clear socio-economic narrative for the overall proposal and a short synopsis for each of the shortlisted options.

* 1. Sensitivity and scenario analysis

Describe the sensitivity analysis and any scenario analysis testing you undertook along with a summary of the results. In line with national guidance, the cost benefit analysis results for all options should be tested, at a minimum, for variations in key parameters and scenarios including:

* option costs (construction and operating costs)
* option benefits
* demand drivers
* climate risk (supply, demand, mitigation and adaptation)
* alternate futures and foresighting analysis to test resilience.

Attach all modelling and analytical reporting in full as an appendix.

Update the stakeholder engagement plan, benefits register and risk register.

* 1. Quality assurance review and results

Summarise the findings of an independent peer review of the economic analysis including a reconciliation against the final methodology, parameters and assumptions and confirming this against Section 6.2 Health check, in the CBA guide. Summarise the findings of the economic analysis including any limitations, constraints, risks and uncertainties.

Does the economic analysis for each option provide the following:

* CBA results with total transparency of key assumptions and inputs
* table of the value of incremental benefit and cost flows for all the key drivers
* options benefit cost ratio (BCR) and net present value (NPV): central case, full NPV profile, P50 and P90 (or equivalent) cost, report on the level of design used
* sensitivity testing of the key parameters—not just a +/- percentage on aggregate values
* scenario testing of key macro drivers (foresighting and alternate futures) and options analysis filtering using this information
* summary table of the sensitivity analysis
* short socio-economic narrative for each of the options and a more detailed narrative for the overall proposal and the preferred option/s.

Have you used the reporting requirements and checklists in the Cost Benefit Analysis Guide?

Have you adequately incorporated peer review feedback into the economic analysis?

A summary of the findings of the independent peer review should be included, with a high-level discussion of the findings and how they have been acted on, in the economic and CBA analyses.



1. Financial analysis (C5)

This section should assess the financial analysis undertaken for the options to evaluate the financial viability of the proposal. It should present a detailed evaluation of the proposal’s financial implications including budget implications and, where applicable, structuring alternatives and commercial imperatives.

* Include the rationale for how you have determined the costs. Describe all assumptions underpinning  the financial evaluation.
* Contact Queensland Treasury for the applicable discount rate.
* Clearly define proposal risks and include a rationale to support your view of the likelihood of the risks eventuating. Appropriate contingency allocations should be calculated assuming a risk does eventuate. Unexpected or unplanned escalation of material costs is a common example of a proposal risk.



* 1. Approach

Document the approach used in the financial evaluation. This should clearly explain how you have developed and justified the assumptions, parameters and inputs. The rationale for the investment evaluation horizon and the terminal value must be clearly explained. Any highly subjective and uncertain cash flows should be appropriately risk-adjusted.

Clearly document the financial analysis approach and analytical outputs necessary to inform the economic cost benefit analysis. Evaluate the budget analysis and affordability requirements for the proposed investment and, if appropriate, for commercial investment evaluation (pre-feasibility or feasibility assessment).

* 1. Financial analysis

Have you incorporated the key considerations for a financial evaluation that are outlined in the *Stage 2: Options Analysis Guide* (Section C5: Financial analysis) ?



For each option, document the key elements of the capital and operating cost budget analysis as outlined in *Stage 2: Options Analysis Guide.* This should include:

* capital costs
* current operating costs
* key assumptions underpinning the analysis, including risk analysis
* sensitivity and scenario analysis to determine the likely impacts on the options’ costs, timing and benefits
* key financial elements to determine the financial merit of the proposal options
* graphs and tables to illustrate and reinforce the key capital and operating budget implications that affect the financial viability of the proposal options
* an independent peer review.

Risk analysis should identify and quantify the likelihood and impact of risks on the proposal options.

Risk allocation should consider the risk owner, whether the public or private sector is responsible for the risk and who is best placed to manage it.



Document the financial implications and budgetary impacts of the options by reviewing the pattern of related cash flows for each shortlisted option.

#### Value capture

See *Stage 2: Options Analysis Guide*. Contact the Department of State Development, Infrastructure, Local Government and Planning for further guidance and materials to help undertake a value capture assessment.

Consult Queensland Treasury for assistance in assessing the potential for private sector funding and/or financing.



* 1. Building information modelling

Document the relevant building information modelling (BIM) requirements for the design, cost and risk analysis that you undertook for the financial analysis.

* 1. Commercial analysis

Commercial analysis should be undertaken in accordance with best practice investment standards while ensuring the analysis also meets the requirements of the investing parties and shareholding Minister’s departments. Document the results of a commercial evaluation.

* 1. Analysis summary

Summarise the findings of the financial analysis including any limitations, constraints, risks and uncertainties.

#### Have you incorporated the key considerations of the financial evaluation outlined in the Stage 2: Options Analysis Guide?

Does the financial evaluation detail the following:

* budgetary impacts and potential government funding sources
* projected cash flows over the life of the proposal and annual projections for net cash flow impact over the proposal horizon (evaluation period)
* an evaluation for value capture and user charging
* risks with financial cash flow consequences accounted with appropriate risk allocation
* stochastic (e.g. Monte Carlo analysis) or other risk analysis (i.e. Crystal Ball and @Risk) on key parameters, including visualisation of key risks e.g. tornado or probability spider
* risk-adjusted cost distribution profiles
* sensitivity and scenario analysis
* the outcomes of the financial analysis and the implications for the options assessment
* feedback from an independent and expert peer review?



1. Affordability analysis (C6)

This section should bring together the discussions in preceding sections of the Stage 2: Options Analysis to outline affordability considerations for each shortlisted option. It should determine whether each option is affordable over the whole of its life by considering whole-of-life costs and all sources of existing revenue, as well as additional income from other sources.

* 1. Approach

Describe the approach and methodology for the affordability assessment and analysis of the preferred funding options.

* 1. Affordability assessment

Indicate the affordability of the proposal and the relative affordability of the shortlisted options.

#### Does the affordability of the proposal consider all assessments performed in the options analysis?

Have you clearly outlined the outcomes of the affordability assessment including potential funding gaps?

* Have you consulted with Queensland Treasury about potential budget and funding implications of the proposal?



# Health check C1

Before progressing further with the options analysis, complete the following checklist. If an item has not been completed, include an explanation in the relevant section.

| # | Have you completed the following tasks? | Section | Completed |
| --- | --- | --- | --- |
| 1 | Identified, described and categorised all potential social impacts for each option (relative to the base case options) | C1 |  |
| 2 | Determined the ability to quantify and/or monetise social impacts | C1 |  |
| 3 | Completed an environmental assessment | C2 |  |
| 4 | Completed a sustainability analysis for each option including comparative analysis | C3 |  |
| 5 | Completed an economic analysis narrative and cost benefit analysis (CBA) | C4 |  |
| 6 | Completed key economic analysis according to the CBA guide, including reporting BCR, NPV using P50 and P90 cost for each option | C4 |  |
| 7 | Identified all option-generated revenues and costs | C5 |  |
| 8 | Created a financial model that forecasts or projects the cash flow profile generated over the full evaluation period | C5 |  |
| 9 | Completed value capture and user-charging assessment | C5 |  |
| 10 | Determined the consequences of identified risks for the financial cash flow estimates and/or wider benefit and cost estimates associated with the option | C5 |  |
| 11 | Undertaken risk adjustment and appropriate simulation (e.g. Crystal Ball or @Risk software) on the financial cash flows reporting full NPV profile, most likely/expected cost, P50 and P90 values, and the level of design used. | C5 |  |
| 12 | Is this level of design acceptable and is the differential between P50 and P90 costs commensurate with this level of design? | C5 |  |
| 13 | Considered the affordability of each option (considering all the previous analysis performed in the options analysis) | C6 |  |
| 14 | Documented the methodology adopted for the affordability assessment | C6 |  |
| 15 | Updated the risk register to include risk assessments from C1 to C6 | Appendix 2 |  |
| 16 | Completed an independent peer review that includes the methodology, assumptions and outputs of the assessments (particularly economic and financial/commercial assessments) | C4 and C5 |  |

1. Options analysis (C7)

The purpose of this section is to:

* summarise the results of the social, financial, economic and environmental analyses
* rank the options
* identify the preferred option/s.

This is the result of all the assessments and reviews conducted in sections A, B and C.

* 1. Approach

Document your approach and methodology for the options analysis, ranking and selection of the preferred option/s. Note any limitations, constraints, sensitivity/scenario analysis and key assumptions.

* 1. Analysis summary

Summarise the outcomes of the analysis for each shortlisted option including the following considerations from sections A, B and C:

* economic (NPV, BCR, IBCR, IRR)
* social
* environmental
* sustainability
* financial and commercial
* affordability
* strategic, legal, and risk considerations

Table 11: Example options analysis summary

| OPTIONs ASSESSMENT | Option 1 | OPTION 2 | Option 3 |
| --- | --- | --- | --- |
| Strategic appraisal | | | |
| Alignment to objectives (state, community, agency) | Low | Medium | Medium |
| Effectiveness in addressng the service need and achieving the benefits sought | Low | Low | Medium |
| Alignment with State Infrastructure Plan options assessment—reform, better use, improve existing, new | Medium | Low | High |
| Social, environmental and sustainability appraisal | | | |
| Social impacts | Positive (low) | Positive (low) | Positive (medium) |
| Environmental impacts | Negative (low) | Negative (low) | Positive (low) |
| Sustainability impacts | Low | Low | Low |
| Economic appraisal | | | |
| Benefit cost ratio | 0.9 | 1.1 | 1.2 |
| Net present value (NPV) | -$xxm | $xxm | $xxm |
| Financial and affordability appraisal | | | |
| Risk | Medium | High | Medium |
| Financial NPV | $xxm | $xxm | $xxm |
| Deliverability appraisal |  |  |  |
| Risk | Medium | High | Medium |
| Financial NPV | $xxm | $xxm | $xxm |
| Potential for Public Private Partnership (PPP) delivery | Low | Low | Medium |
| **Outcome** |  |  |  |
| Ranking | 3 | 2 | 1 |

* 1. Preferred option/s

Explain why the options analysis is robust and defensible, and how the preferred option’s social, economic, and environmental viability is likely to deliver value for money and be affordable over the life of the option. Compare and optimise the preferred option’s costs and benefits, depth of technical investigations, sensitivity analysis and market sounding.

The preferred option/s should be documented and should include the information shown in Table 12.

Table 12: Preferred options

| Option x: [Option title] | |
| --- | --- |
| Intended outcomes | What the option will accomplish (i.e. objective/s, benefits), specifically noting how the benefits that will be achieved by the options compare to the targeted benefits |
| Affordability and value for money | How the preferred option will deliver value for money |
| Scope | Inclusions and exclusions and how the option will address the service need |
| Implementation | A description of how the shortlisted option would be implemented |
| Dis-benefits | A summary of dis-benefits of the option |
| Infrastructure | A summary of any infrastructure components of the options, canvassing several technical solutions and engineering possibilities |
| Other requirements | Any requirements for complementary infrastructure and/or opportunities for integration or coordination with other proposals |
| Risk assessment | The results of the risk assessment conducted on shortlisted options |

Update the benefits register, risk register and stakeholder engagement plan.

This section should clearly recommend the preferred option/s to progress for detailed analysis in Stage 3: Detailed Business Case. It should also provide documentation supporting a robust, transparent and defensible options analysis. Where a preferred option, or set of options cannot be supported, the recommendation is not to proceed with further development.



# Health check C2

Before progressing, the Stage 2: Options Analysis, complete the following checklist.

| # | Have you completed the following tasks? | Section | Completed |
| --- | --- | --- | --- |
| 1 | Documented all sources used, assumptions made, and methodology adopted for selecting a preferred option/s has been documented and the information is robust, transparent and defensible | C7 |  |
| 2 | Documented intended outcomes, affordability and value for money, scope, implementation, disadvantages, infrastructure considerations, risks and other requirements for the preferred options | C7 |  |
| 3 | Included descriptions for:   * the key impacts associated with the preferred option/s * the priority of the preferred option/s * the implications of not proceeding with the preferred option/s | C7 |  |
| 4 | Made clear what is required for the preferred option to successfully achieve the targeted outcomes | C7 |  |
| 5 | Summarised the service need or problem, outcomes, targeted benefits and options analysis in the conclusion to the Stage 2: Options Analysis | Conclusions |  |
| 6 | Updated the risk register | Appendix 2 |  |
| # | Critical decision points |  |  |
| 1 | Have any issues been identified that could result in the shortlisted options not proceeding? |  |  |
| 2 | Are any of the assessments affected by optimism/momentum bias? |  |  |

Section D:  
Preferred option/s implementation considerations

1. Market considerations (D1)

This section should outline the current market conditions and provide an outline of identified opportunities and risk related to procurement.

Market sounding can also be used to gain feedback on ways to present the proposal to the market to increase its attractiveness and reduce obstacles.

Queensland Treasury can assist with the development of a market sounding plan if required.



* 1. Approach

This section should include content as outlined in Table 13.

Table 13: Market considerations

| Content | Considerations |
| --- | --- |
| Market sounding objectives | Market sounding refers to the collection of activities to determine the market’s appetite for involvement and/or explore possible solutions. Document the objectives for market sounding. They may include:   * obtaining market information including risk appetite and the availability of contractors * acquiring feedback on matters such as proposal scope and specification, the opportunity for design and construction innovation, timelines for the bidding process and bidder selection criteria * providing information to the market e.g. on proposal requirements. |
| Market sounding approach | For the Stage 2: Options Analysis this may involve detailed desktop market sounding of trends and issues including formal requests for information. In some cases, this will involve conducting formal market sounding processes using structured engagement with industry.  As market sounding should focus on the private sector as a whole rather than on any individual company, structured engagement requires careful consideration regarding which companies and industry groups to approach.  Planning and structuring the engagement is important to minimise the risks of providing information to companies which may give them an unfair advantage during any future procurement processes.  A clear probity protocol is required to assist in managing such risks. Probity protocols should not prevent discussions with the market but they should ensure care is exercised so no company has, or is perceived to have, received or provided information that offers them an unfair advantage in any subsequent procurement process. |
| Market feedback | Feedback typically includes:   * feedback on options and risk allocation * market preference on size and staging (work packages). |
| Assessment of market capability | Consider the market capability and interest including delivery or financing options. This should include local market engagement during options analysis development as well as delivery.  Where the local market is to be targeted during delivery, this should be reflected in the economic and financial analyses.  Information from this section is used to inform the financial and risk assessment sections. |

* 1. Outcomes

Does the key market feedback information include risk, market capability and other considerations which will inform deliverability assessment, environmental assessment, the social impact evaluation, the risk assessment and cost estimates to ensure confidence in the proposed investment?

1. Delivery model analysis (D2)

This section should outline the delivery model analysis undertaken for potential delivery models. The analysis should initially consider packaging options for the preferred options, followed by delivery model analysis and development of private finance models (as appropriate).

* 1. Approach

This section should include content as outlined in Table 14 below.

Table 14: Delivery model analysis content and considerations

| Content | Considerations |
| --- | --- |
| Approach | Describe the methodology used to assess the delivery model for shortlisted options. This should include documentation of:   * assumptions underlying the analysis * proposal characteristics e.g. objectives, scope, timelines, stakeholders, market capability and capacity * proposal key inputs to the analysis e.g. costs, risks, market sounding and financial analysis * literature used to inform the assessment, in particular current issues and case studies on delivering similar proposals in Queensland and other jurisdictions * staging of opportunities and scenarios * proposal items not already considered as part of the analysis * criteria and measures for analysis, including the importance of the criteria * evaluation and mitigation of risks * scope inclusions and exclusions. |
| Packaging evaluation | The packaging evaluation should initially consider whether the investment should be packaged as one package or several. The analysis should always detail evidence to support the evaluation. Issues to consider may include:   * brownfield versus greenfield infrastructure * discrete elements of procurement e.g. signalling, roads * easily separable portions of work e.g. geographically * analysis of risks and interface issues * operating environment * accessibility * staging opportunities and requirements. |
| Analysis context | Document key elements for the delivery model analysis including:   * proposal objectives * proposal design * detailed quantitative risk assessment, including whether risks could potentially be transferred using both public and private procurement models * detailed elemental capital and operating costs * agency capability * analysis of efficiency opportunities * investments that have set a precedent across jurisdictions * historical evidence (locally or across other jurisdictions, where applicable) * interface challenges * detailed transposition of workshop discussions. |
| Delivery model analysis outcomes | * Outline potential traditional delivery models considered for the proposal. * Summarise and discuss the assessment of the potential traditional models. * Make note of any justification for government delivery e.g. design. * Identify the preferred traditional delivery model, rationale for selection and associated risks. * Give details of the delivery of similar infrastructure elsewhere. * Summarise the potential for PPPs to procure and deliver the preferred option/s. * Include an assessment of potential PPP delivery models considered for the proposal. |
| Proposed model | Document the proposed model including a summary of its advantages and disadvantages. |

* 1. Traditional delivery model assessment

The delivery model analysis should evaluate potential procurement models and recommend a procurement model that is likely to optimise value for money in delivering the investment.

The analysis should consider packaging options for the procurement as well as developing private finance models (as appropriate).

Describe the delivery models considered for each option, the components of each option (if applicable) and key considerations (precedent projects, risk allocation).

* 1. Private finance delivery model assessment

Summarise the potential for a public private partnerships (PPP) to procure and deliver the preferred option/s. Include an assessment of potential PPP delivery models considered for the proposal.

#### Does this section outline a recommended approach that provides value for money for investment consideration?

A recommended option should be the most cost-effective, feasible and deliverable approach for the proposal, which best meets the evaluation criteria. The proposal should consider the potential for packages of work and whether traditional and PPP delivery models are suitable responses to the evaluation criteria.

The evaluation must consider how the proposal will be managed throughout its lifecycle.

##### Have you clearly documented the methodology used for evaluating the delivery model?

In completing this section have you provided the following:

* an evaluation of work packages
* an evaluation of a range of potential delivery models, including traditional and PPP
* a summary of the outcomes of value-for-money PPP evaluation?



1. Next steps (D3)
   1. Stage 3: Detailed delivery and resource plan

Informed by the findings of the options analysis and as documented in the conclusions and recommendations section’s, develop a detailed delivery and resource plan for a detailed business case, if the options analysis is recommending that a preferred option/s should progress to a Stage 3: Detailed Business Case.

* 1. Communication plan

Where appropriate, develop a communication strategy/plan to support the stakeholder engagement plan and include it as part of the implementation plan.

1. Conclusions
   1. Outcome of the analyses

Clearly articulate the outcome of the social, economic, financial and environmental analysis of the merit of the proposal. Show how the preferred option/s meet the service need and deliver quadruple bottom-line outcomes by drawing together the key findings from the analysis in sections A, B and C.

Clearly articulate the limitations and constraints in the analysis, supporting whether the proposal should progress further, be rejected or be subject to further analysis.

Summarise key content noting risks and limitations that could affect the next stage of analysis. Include delivery methods for the preferred options.

1. Recommendations

This section should sum up findings on the viability of the proposal—economic, social, environmental, financial, deliverability and affordability. It should also give a clear recommendation for which (if any) of the preferred options, or alternatives, are recommended for proceeding. Provide detailed recommendations flowing from the analytical and strategic considerations developed within the options analysis.

* 1. Viable option/s

Explain whether or not the proposal should progress to Stage 3: Detailed Business Case. Also include:

* whether the preferred option/s should proceed as a potential PPP
* a recommended traditional delivery model for the preferred option/s (include this recommendation even if the preferred option has been identified as a potential PPP)
* timing of recommended solutions, including any urgency or recommendations for optimisation.
  1. Recommended actions

Where the outcome of the analyses concludes that a non-infrastructure option/s is the best solution to progress, include recommendations about the oversight and ownership of the proposal for the future.

If you are recommending that the proposal proceeds, this section should also:

* request approval to go ahead with the Stage 3: Detailed Business Case plan
* highlight any significant issues or risks to inform decision-makers
* include references i.e. list all references and sources of evidence to support the options analysis and the completed assessments.

Finalise the benefits and risks registers and note any possible future risk and benefits activities.

# Health check D

To conclude the Stage 2: Options Analysis, complete the following checklist.

| # | Have you completed the following tasks? | Section | Completed |
| --- | --- | --- | --- |
| 1 | Reviewed and documented market considerations | D1 |  |
| 2 | Completed qualitative assessment of a range of potential delivery models (traditional and PPP) to determine which delivery model is likely to deliver the best value for money | D2 |  |
| 3 | Documented the methodology adopted for the delivery model assessment | D2 |  |
| 4 | Summarised the outcomes of a traditional delivery model assessment | D2 |  |
| 5 | Summarised the outcomes of a value-for-money PPP assessment | D2 |  |
| 6 | Completed and documented a Gate 1 Assurance Review has been completed (if required) | A2 |  |
| 7 | Prepared a detailed delivery and resource plan for the Stage 3: Detailed Business Case (if required) | D3 |  |
| 8 | Summarised the service need or problem, outcome and benefits sought, and the options analysis in the conclusion to the Stage 2: Options Analysis | A3 |  |
| 9 | Documented conclusions | Conclusions |  |
| 10 | Documented recommendations | Recommendations |  |
| 11 | Created a concise executive summary to give a high-level overview of the results of the Stage 2: Options Analysis assessment | Executive summary |  |
| 12 | Updated the risk register | Appendix 2 |  |
| 13 | Reviewed the completed options analysis to assess whether:   * it is complete * the information is contemporary, reliable and reasonable * it is robust, defensible and transparent * it clearly documents ownership * assessments and documentation enable the options analysis to be compared to others | - |  |
| # | Critical decision points |  |  |
| 1 | Have any issues been identified that could result in the shortlisted options not proceeding? |  |  |
| 2 | Are any of the assessments affected by optimism/momentum bias? |  |  |

# References

List all relevant references used in the development of Stage 2: Options Analysis.

1. Benefits register

Benefits identified during Stage 2: Options Analysis should be captured in a benefits register. Initially, the benefits register might only have completed columns for:

* benefit description
* statement of problem/opportunity or proposed initiative the benefits relate to
* related stakeholder/s
* potential beneficiaries.

At Stage 2: Options Analysis, the benefits register is used to ensure that options address the benefits sought and allows stakeholder needs to be incorporated in the options’ design. The benefits register in the options analysis will update the information gathered during Stage 1: Strategic Assessment. It should capture the suggested category of the benefit, dependences, risks and other relevant considerations. Further information on refining benefits can be found in the *Benefits Management Framework* and the [*Social Impact Evaluation Guide*](http://buildingqueensland.qld.gov.au/our-business/frameworks/).

Table 15: Example benefits register

| Initial Benefit register | | | | | |
| --- | --- | --- | --- | --- | --- |
| Benefit description | Related to: (state problem/ opportunity statement or potential initiative) | Related stakeholder/s | Potential beneficiary | Possible measures | Relative importance |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

1. Risk register

While developing the Stage 2: Options Analysis, risks should be captured in a risk register. Initially the risk register might only have completed columns for:

* risk description
* trigger
* impact.

At Stage 2: Options Analysis, the risk register is used to identify and shape options and to identify stakeholders. Further details will be included in the risk register as the options are further refined in the Stage 2: Options Analysis.

Table 16: Example risk register

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| RISK register | | | | | | | |
| Risk category | Risk description | Trigger | Impact | Likelihood | Consequence of risk | Risk rating | Control strategy |
|  | There is a risk that … | … caused by … | ... resulting in … |  |  |  |  |
| Delivery | There is a risk construction will be delayed | … caused by extended periods of rain | … resulting in an extended construction period that may affect … | Likely | Major | High | Ensure the project schedule includes sufficient float to account for potential weather delays |
| Demand | There is a risk local growth strategies may change under the newly elected local council | … caused by new local councillors having a stronger preference for urban containment | … resulting in lower traffic volumes and toll revenue | Possible | Moderate | Medium | Agency to keep in close and regular contact with council |
|  |  |  |  |  |  |  |  |

1. Stakeholder engagement plan

A stakeholder engagement plan should include the stakeholders that are relevant to the service need and who should be considered while developing the options analysis. The stakeholder engagement plan should document the methods and frequency with which stakeholders will be engaged. The plan is a living document and should be adjusted throughout the options analysis development. Active and early stakeholder engagement is recommended.

Further information is available in the *Stakeholder Engagement Guide*.

At options analysis stage, the stakeholder engagement plan should include:

* stakeholder name/description
* extent of stakeholder interest and influence in service need/potential initiative
* proposed mechanism for stakeholder engagement i.e. inform, consult, active participation
* risks of engaging (or not) with stakeholders
* proposed strategies for managing stakeholder risks.

Table 17: Example stakeholder engagement plan

| Initial Stakeholder Engagement Plan | | | | | |
| --- | --- | --- | --- | --- | --- |
| Stakeholder name/description | Interest level (H,M,L) | Influence level (H,M,L) | Proposed mechanism and actions | Risks | Risk management strategies |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

1. Multi-criteria analysis

The following tables give examples for developing a multi-criteria analysis from the supporting analysis to filter the options longlist. In keeping with contemporary practice, consider the use of numeric, objective scoring criterion.

The following tables are examples only. To ensure they are relevant, tailor the assessment criteria to your individual proposal. Discard options which do not address the service need or the benefits sought.



Table 18: Example multi-criteria analysis

| Benefits sought  This assessment considers the degree to which the potential options realise the benefits sought [insert benefit]. | |
| --- | --- |
| Description | SCORE |
| The option:   * does not deliver the benefits sought. | 0 |
| The option:   * partially delivers the benefits sought. | 1 |
| The option:   * partially delivers the benefits sought, with the possibility of increasing the degree of benefits realised with further investment. | 2 |
| The option:   * fully delivers the benefits sought. | 4 |
| The option:   * fully delivers the benefits sought; provides additional incremental benefits for the wider community. | 5 |

**Example only**

| Strategy and policy  This assessment considers the degree to which the potential options are aligned with other government initiatives. | |
| --- | --- |
| Description | SCORE |
| The option:   * does not support the delivery of other government initiatives, and. * is not aligned with the timing of other government initiatives. | 0 |
| The option:  **Example only**   * partially supports the delivery of other government initiatives, or * is partially aligned with the timing of other government initiatives. | 1 |
| The option:   * partially supports the delivery of other government initiatives, and * is partially aligned with the timing of other government initiatives. | 3 |
| The option:   * fully supports the delivery of other government initiatives and is consistent with a whole-of-government approach, or * is fully aligned with the timing of other government initiatives. | 4 |
| The option:   * fully supports the delivery of other government initiatives and is consistent with a whole-of-government approach, and * is fully aligned with the timing of other government initiatives. | 5 |

| Service need  This assessment considers the degree to which the potential options sufficiently address the service need. | |
| --- | --- |
| Description | SCORE |
| The option:   * does not address the service need. | 0 |
| The option:   * partially addresses the service need. | 0 |
| The option:   * partially addresses the service need, with the possibility of fully addressing the service need with further investment. | 1 |
| The option:  **Example only**   * fully addresses the service need. | 4 |
| The option:   * fully addresses the service need, and * provides additional incremental benefits for the wider community. | 5 |

| Legal and regulatory  This assessment considers the degree to which the potential options are aligned with applicable legal and regulatory requirements.  **Example only** | |
| --- | --- |
| Description | SCORE |
| The option:   * does not align/meet the required legal and regulatory requirements. | 0 |
| The option:   * partially aligns/meets the required legal and regulatory requirements. | 1 |
| The option:   * fully aligns/meets the required legal and regulatory requirements. | 3 |

|  |  |
| --- | --- |
| Sustainability considerations  This assessment considers the degree to which the potential options contribute to the sustainability goals.  **Example only** | |
| Description | SCORE |
| The option:   * does not meet any of the outlined sustainability goals. | 0 |
| The option:   * partially meets the outlined sustainability goals. | 1 |
| The option:   * meets all the outlined sustainability goals. | 3 |

| Market considerations  This assessment considers the degree to which the market can deliver the options. | |
| --- | --- |
| Description | Score |
| For the option:   * There is no market capability to deliver this option. | 0 |
| For the option:  **Example only**   * There is limited market capability to deliver this option. | 1 |
| For the option:   * There is market capability to deliver this option. | 3 |

| Public interest considerations  This assessment considers the degree to which the potential options are aligned with the evaluated public interest considerations. (i.e. public access and equity, impact on stakeholders, consumer rights, safety and security, and privacy)  **Example only** | |
| --- | --- |
| Description | SCORE |
| The option:   * does not meet any of the outlined public interest categories. | 0 |
| The option:   * does not meet all of the outlined public interest categories. | 1 |
| The option:   * meets all the outlined public interest categories. | 3 |

**[Proposal owner]**

[Contact details]

[Contact details]

[Contact details]