



BUSINESS CASE DEVELOPMENT FRAMEWORK

PRELIMINARY BUSINESS CASE

GUIDANCE AND TEMPLATE

RELEASE 2 | DECEMBER 2016

BUILDING QUEENSLAND BUSINESS CASE DEVELOPMENT FRAMEWORK

Building Queensland has been established under the *Building Queensland Act 2015* to provide independent expert advice to the Queensland Government about infrastructure.

This document forms part of the Building Queensland Business Case Development Framework, as follows:

OVERARCHING FRAMEWORKS	
	Business Case Development Framework
	Benefits Management Framework

GUIDANCE MATERIAL	SUPPLEMENTARY GUIDANCE MATERIAL
Strategic Business Case	Investment Logic Mapping Guide
 Preliminary Business Case	Social Impact Evaluation Guide
Detailed Business Case	Cost Benefit Analysis Guide

RELATED DOCUMENTATION
Project Internal Assurance Framework
Engaging with Building Queensland Guides

Building Queensland would like to acknowledge the following work which has provided input to this guide:

- Project Assessment Framework, Queensland Treasury
- Investment Management and Better Business Case Guidance, The Treasury, New Zealand
- Assessment Framework, Infrastructure Australia.
- Building Queensland would also like to thank the members of the Building Queensland Reference Groups for their assistance and support in developing the Business Case Development Framework documents.

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Attribution: Unless otherwise noted, content from the Business Case Development Framework should be attributed to: Building Queensland Business Case Development Framework.

V2.1 December 2016



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AMENDMENTS FROM RELEASE 1

- General guidance separated from content requirements.
- Diagrams included in each section to illustrate the activities and information that provide input into that section and where the section's outputs lead to.
- Clarity regarding the function of the Preliminary Business Case in analysing proposed options to address the identified service need.
- Clearer articulation of the requirements to align to strategic priorities and support state, national, regional and local plans (where appropriate).
- Increased focus on benefits, risk, quality assurance, project assurance and stakeholder engagement.
- Explicit acknowledgement of the importance of a systems/program view and effective integration across initiatives.
- Inclusion of sustainability, base case, methodology and value capture sections.
- Use of high-level considerations as first order conditions for the refinement of options design or filtering.
- Increased focus on Business Case options achieving the benefits sought rather than solely on cost-driven decisions.
- Clearer articulation of risk and sensitivity analysis.
- Improved content alignment with the Queensland Government Project Assessment Framework and Infrastructure Australia's Assessment Framework requirements.



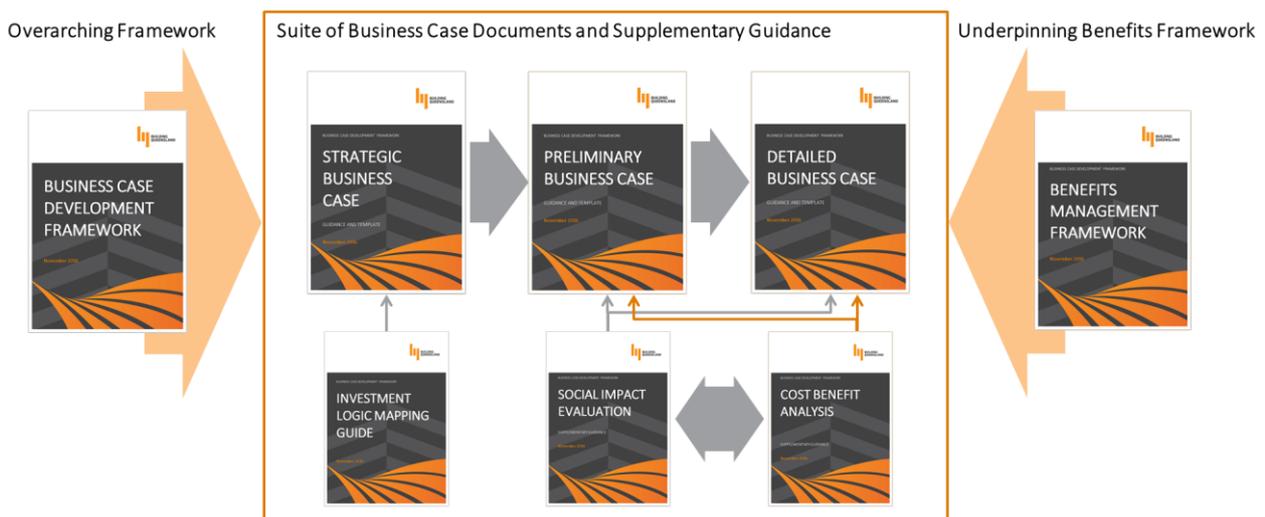
A. INTRODUCTION

Infrastructure investment decisions have a direct impact on Queensland's economic and social domain. Good decision making relies on quality proposals, well-developed Business Case documentation and robust review processes. In line with the requirements of the *Building Queensland Act 2015*, Building Queensland's Business Case Development Framework (BCDF) aims to enhance the way in which infrastructure proposals are developed in Queensland to support improved infrastructure outcomes. The BCDF focuses on the development of the following core Business Case documents:

- Strategic Business Case (SBC)
- Preliminary Business Case (PBC)
- Detailed Business Case (DBC).

These documents are supported by a number of other Building Queensland guides, as illustrated in Figure 1.

Figure 1: The Business Case Development Framework



The Building Queensland [Project Internal Assurance Framework](#) provides additional support for the effective development of quality Business Cases. Contact Building Queensland for further information.

i. Purpose of the Business Case Development Framework

The BCDF provides detailed guidance on the requirements for Building Queensland Business Cases and guides authors through those requirements on a section by section basis. Specifically, the BCDF aims to:

- reduce the costs of developing Business Cases
- reduce the time taken to develop Business Cases
- align with best practice to ensure Business Cases meet state and federal government requirements (e.g. Queensland Government's Project Assessment Framework (PAF) and Gateway Reviews)
- enable government to assess Business Cases consistently and to compare investment opportunities
- clarify Building Queensland's expectations for Business Cases (including those contained in the [Infrastructure Pipeline Report](#)).

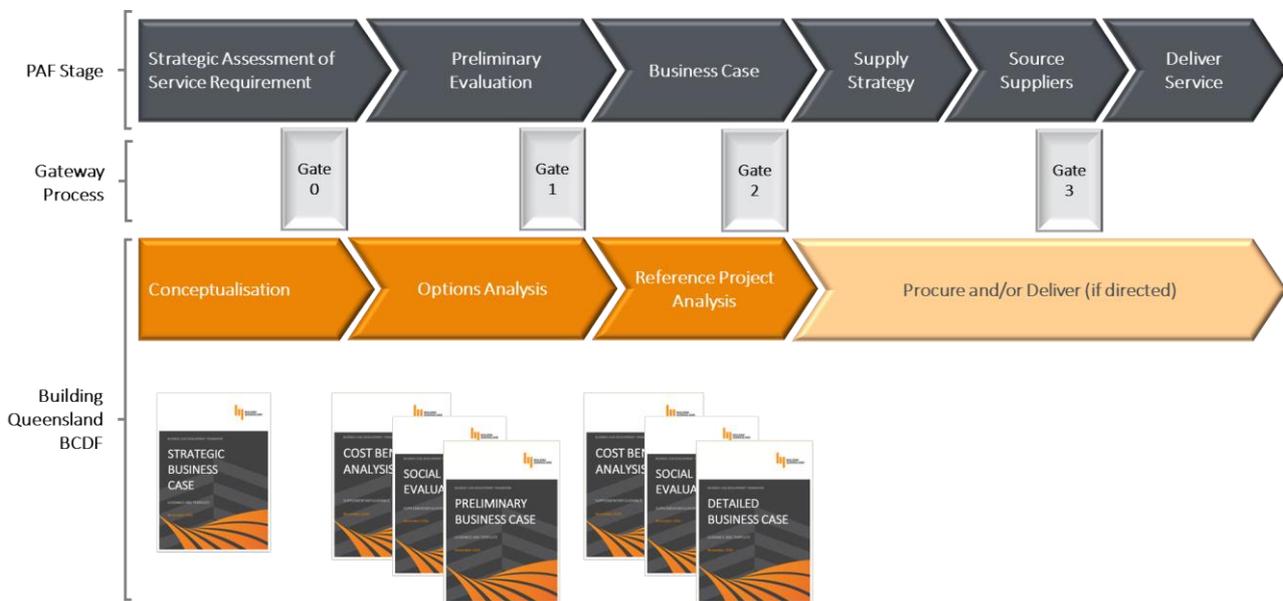


The BCDF guides a proposal from conceptualisation (Strategic Business Case), to options generation and analysis (Preliminary Business Case), and finally to, the detailed analysis of the preferred option/s (Detailed Business Case). Supplementary guidance is provided for Cost Benefit Analysis and Social Impact Evaluations.

ii. The Business Case Development Framework and the Project Assessment Framework

The foundation for the BCDF is the Queensland Government’s Project Assessment Framework (PAF). The BCDF supplements the PAF process by providing guidance on **how** to complete the assessments required to develop robust Business Cases. The alignment between the BCDF and the PAF is illustrated in Figure 2.

Figure 2: Alignment of the Building Queensland Process with the PAF



The BCDF differs slightly from the PAF at the Strategic Business Case and Preliminary Business Case stages. In the BCDF, the SBC culminates in identifying high-level initiatives only. This is designed to minimise the work required in an SBC before a decision is made to progress it. It also encourage authors to focus on articulating the service need rather than potential solutions.

Gateway Reviews are included in the BCDF as an important aspect of assurance.

iii. Purpose of a Preliminary Business Case

The PBC is the second document in the BCDF and aims to transition the concept documented in the SBC through an options generation and assessment process it culminates in a preferred option/s for analysis within the DBC. The PBC is supported by detailed guidance material in the Cost Benefit Analysis (CBA) Guide and Social Impact Evaluation (SIE) Guide. The relationship between the BCDF documents is illustrated in Table 1.

The PBC takes the potential initiatives identified in the SBC and develops options for solutions. Where several options are identified, they are reduced to a smaller number of reasonable alternatives. The shortlisted options are analysed to identify preferred option/s for detailed analysis in the DBC. Completion of the activities documented in a Building Queensland SBC supports the integrity and quality of the PBC.



Table 1: Business Case Development

	STRATEGIC BUSINESS CASE	PRELIMINARY BUSINESS CASE	DETAILED BUSINESS CASE
Purpose	Conceptualisation: <ul style="list-style-type: none"> articulates the service need to be addressed identifies intended benefits 	Options consideration: <ul style="list-style-type: none"> re-confirms service need generates possible options analyses options identifies preferred option/s confirms whether to invest in a DBC 	Preferred option/s analysis: <ul style="list-style-type: none"> develops evidence for investment decision making
PAF stage	<ul style="list-style-type: none"> Strategic Assessment of Service Requirements (SASR) 	<ul style="list-style-type: none"> SASR (Shortlist Options) Preliminary Evaluation 	<ul style="list-style-type: none"> Business Case
Supporting documents	<ul style="list-style-type: none"> Benefits Management Framework Investment Logic Mapping Guide 	<ul style="list-style-type: none"> Benefits Management Framework Social Impact Evaluation Guide Cost Benefit Analysis Guide 	<ul style="list-style-type: none"> Benefits Management Framework Social Impact Evaluation Guide Cost Benefit Analysis Guide

The PBC:

- re-confirms the service need
- documents how the proposed response contributes to government policy
- scopes the proposal providing enough detail for the decision maker can understand how the service need is to be addressed
- documents the economic, social, environmental and financial viability of the shortlisted options to be used for options analysis and to support selection of the preferred option/s
- identifies and assesses potential options, providing the decision maker with assurance that the most appropriate option/s is progressed to the DBC for detailed analysis
- recommends (where appropriate) an option/s to be considered for detailed assessment in the DBC stage (which provides details on the financial, economic and social viability of the proposed project)
- enables the investment decision maker to decide whether to invest in developing a DBC.

The PBC considers whether the preferred option/s is suitable for delivery as a Public Private Partnership (PPP) or should be progressed as a traditional delivery model.

The PBC is made up of four parts:

- confirmation of proposal conceptualisation—statement of service need, benefits sought, current state, strategic context
- options generation—documentation of base case, generation of options long list, filtering of long list, options shortlist
- options analysis—strategic considerations, social impact analysis, economic analysis, financial and commercial analysis etc.
- preferred option/s recommendation.



All parts should focus on how benefits will be achieved and risk effectively managed as illustrated in Figure 3.

Figure 3: High-Level Aspects of the Preliminary Business Case



iv. Purpose of this Guide

This guide aims to assist in the development of a quality, robust PBC that supports investment decision making. The guide is divided into three parts:

- A. Introduction to the BCDF and this guide
- B. Overarching guidance for the PBC development
- C. Guidance on how to prepare a PBC (with a PBC contents list provided in Appendix 1).

This guide provides a preferred approach for developing a PBC and details the work to be undertaken to successfully complete a PBC within the Building Queensland BCDF. It outlines a minimum standard and is not intended to cover all policy obligations or agency requirements.

This guide is not intended to provide a step-by-step process for PBC development, as noted in Section C, PBC development will vary, subject to the complexity of the proposal as well as the complexity of the development process. High-level and generic tools for PBC development include:

- input and output diagrams at the start of each chapter indicate how the information in chapters connects to other chapters
- control points after sections 6, 8, 12, 14 and 20 to provide authors with an opportunity to assess whether work has been completed appropriately before moving on
- critical decision points in each control point to provide authors with an opportunity to reflect on whether the proposal should continue or cease.

v. When to Use this Guide

The BCDF applies to nominated government-owned corporations and government agencies.

The BCDF is used for infrastructure proposals led by Building Queensland which have an estimated capital cost of \$100 million or more, or if the net present value of financial commitments entered into by the state for the proposal is estimated to be \$100 million or more.

The templates and guidance may be used for proposals below this threshold, and their use is encouraged for projects where Building Queensland assists in preparing Business Cases (those with an estimated capital cost or net present value of state financial commitment of \$50 million to \$100 million).



vi. Further Information and Support

Contact Building Queensland on 07 3237 7500 for further information and assistance on:

- Strategic and Preliminary Business Case development (Early Stage Project Development Group)
- Investment Logic Mapping (Early Stage Project Development Group)
- Detailed Business Case development (Business Case Group)
- Social Impact Evaluation (Social Benefits Manager, Frameworks Group)
- Cost Benefit Analysis (Cost Benefit Manager, Frameworks Group)
- Quality and Project Assurance (Internal Assurance Manager, Frameworks Group)
- Feedback or clarification on any BCDF document (Frameworks Group)
- Infrastructure Pipeline (Strategy Group).



B. OVERARCHING GUIDANCE FOR PRELIMINARY BUSINESS CASE DEVELOPMENT

The Building Queensland BCDF promotes the development of quality Business Cases through a focus on benefits, quality assurance and ongoing management of risk. This aims to ensure that investment proposals are effectively targeted and can reasonably be expected to deliver the required outcome/s for stakeholders. For this reason, all Business Cases in the BCDF should be developed with a continual focus on the effective management of:

- benefits
- risk
- quality
- stakeholder engagement.

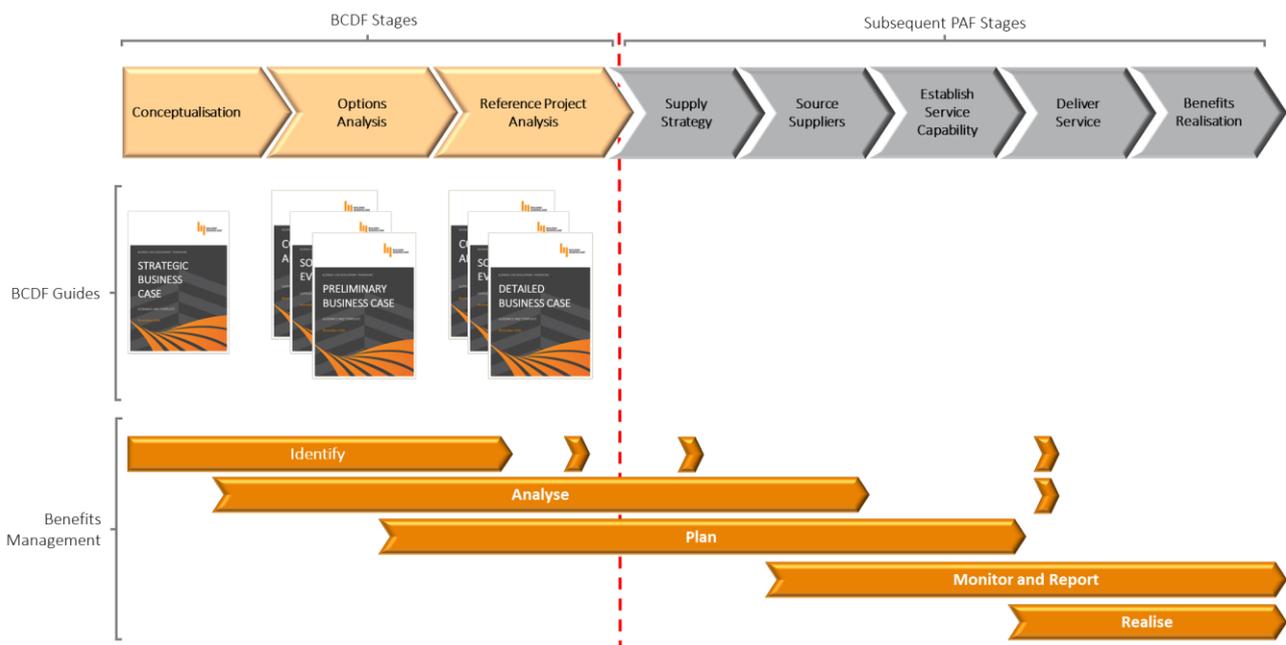
This section provides overarching guidance of how benefits management, risk management, quality and project assurance and stakeholder engagement integrate within SBC development. Further detail is included in the [Business Case Development Framework](#) overarching document and the [Benefits Management Framework](#).

i. Benefits Management in the Preliminary Business Case

A focus on realising benefits (social, economic, environmental as well as financial) ensures that the investment proposal will achieve outcomes that are valued by stakeholders and will contribute to strategic imperatives.

During PBC development, the predominant benefits management activities involve ongoing identification of benefits and benefits analysis (illustrated in Figure 4).

Figure 4: Benefits Management in Business Case Development





Benefits-management activities during PBC development focus on:

- reconfirming the benefits sought in responding to the service need to ensure the basis of the design and progression of the potential initiatives from the SBC remain valid
- reconfirming and identifying further beneficiaries and stakeholders (including stakeholders who may be impacted either positively or negatively), and articulating the relationship between stakeholders and the benefits sought; this:
 - ensures that appropriate stakeholders are engaged in proposal development
 - verifies the true service need to be identified and addressed
 - supports identification and management of stakeholder interdependencies
- identifying and documenting benefits dependencies; this ensures that the preferred option/s is appropriately designed to reduce potential negative impacts and unintended consequences
- identifying benefits to be achieved for each of the options; this enables:
 - additional benefits that may be achieved from the options to be accounted for
 - additional stakeholders to be identified and engaged with
 - assessment of potential initiatives against the initial benefits sought
- identifying any potential dis-benefits (adverse impacts) and considering how they might affect the options design; this enables options to be either adjusted or discarded to minimise the impact of dis-benefits
- analysing and documenting monetary and non-monetary benefits for each option to enable options to be compared
- documenting benefits dependencies and assumptions
- identifying any benefits risks enabling those risks to be addressed in options design
- identifying risks to realising benefits (the Risk Register should be updated accordingly).

The identification and conceptualisation of benefits in this stage must be undertaken within the context of the entire benefits lifecycle to ensure the benefits selected are able to be effectively managed, monitored and realised.

The Benefits Register should be updated as benefits are identified, discarded and analysed. An example Benefits Register is included in Appendix 2.

ii. Risk Management in the Preliminary Business Case

Risks should be addressed during PBC development to ensure that they are effectively considered and managed in the resulting preferred option/s. Risk-management activities during PBC development include:

- identifying proposal risks to ensure the options are designed to effectively address those risks where possible—i.e. risks associated with changes in the proposal background, service need, stakeholders, options generated, or strategic and political context
- identifying methodological risks in PBC development—i.e. methodology, assumptions and practices underpinning the assessments (social, economic, environmental, financial), data reliability, accuracy and currency



- identifying process risks—i.e. stakeholder engagement activities, timing etc. to ensure the process for developing the PBC maximises its outcomes
- identifying potential project risks—i.e. timing, delivery, funding and governance arrangements.

Thorough risk consideration and management during PBC development ensure that the preferred option/s adequately recognise and account for risks, and include risk consideration in costings. The initial Risk Register developed in the SBC should be updated to capture the risks identified or accounted for in PBC development.

Ongoing assessment and documentation of risks is required during DBC development. Refer to your agency's risk-management policy and the Australian Standard (AS NZS ISO 31000:2009 Risk management—Principles and guidelines) for guidance on conducting a risk assessment. The PAF and National PPP policy (if applicable) also provide guidance on risk assessments. An example Risk Register is included in Appendix 3.

iii. Quality and Project Assurance in the Preliminary Business Case

Careful attention to quality and project assurance activities aims to improve the efficiency and effectiveness of a project and the quality of its outputs. The project and quality assurance requirements in PBC development (whether Building Queensland provides a lead or assist role) are detailed in the [Project Internal Assurance Framework](#). Quality and assurance mechanisms may include:

- establishing appropriate governance arrangements to oversee PBC development, for example:
 - Project Steering Committee
 - scope and change-management controls
 - a Project Quality Management Plan
 - a Project Stage Management Plan
- managing the day-to-day PBC process in accordance with the agency's project management methodology
- establishing a working group to identify and manage issues, including representatives from other government agency stakeholders
- engaging specialist reviewers to review both the approach and content of the document
- peer and technical review of data (and supporting assumptions and modelling analysis) to ensure the results are valid, reliable and accurate, and to ensure data effectively support the process of identifying the service need
- executive review
- project health and project governance reviews
- Building Queensland Frameworks Alignment Review
- focused technical reviews (e.g. in response to an identified or perceived issue)
- Gate 1 Review.

Gate Reviews are mandatory for ICT related initiatives. The Queensland Government Chief Information Office (QGCIO) can provide further information on the requirements for ICT related Gateway Reviews.

Further detail on quality and project assurance activities is included in the [Business Case Development Framework](#) overarching document and the Building Queensland Project Internal Assurance Framework.



iv. Stakeholder Engagement in the Preliminary Business Case

Community consultation and stakeholder engagement are highly recommended during PBC development but are subject to the risk appetite of the agency, the nature and complexity of the service need to be addressed, the complexity of assessments in the PBC and the nature of the stakeholders themselves. A risk assessment should be undertaken to consider the potential benefits and risks of engaging with stakeholders.

Stakeholder-engagement activities in the PBC may support:

- greater understanding of different stakeholders' perceptions of the service need to support the identification of appropriate initiatives
- effective identification of stakeholders' expectations regarding the potential project and the benefits they seek
- better outcomes and greater accuracy in the identification of public-interest considerations, refinement of options and options assessments
- establishment of 'social licence'
- effective risk management
- improved project outcomes resulting from improved liaison between agencies when there are overlapping jurisdictions or when approvals are required from multiple departments or independent regulatory agencies (these improved project outcomes may relate to time, cost and user satisfaction).

Although stakeholder engagement can provide better outcomes as a result of improved articulation of the service need, there are risks associated with stakeholder engagement. Stakeholder expectations must be carefully managed.

Where stakeholders are engaged, the Stakeholder Engagement Plan (SEP) that was developed and approved by the Senior Responsible Officer (or equivalent) during SBC preparation should be updated and re-approved by the project owner. The SEP guides stakeholder engagement activities throughout PBC development. The SEP is refined as PBC activities identify emerging stakeholders. An example SEP is included in Appendix 4.

Any risks associated with the decision to engage (or not engage) with stakeholders should be considered and documented in the Risk Register (refer to the example in Appendix 3).

Further information on stakeholder engagement is included in the [Business Case Development Framework—Overview](#) document.

v. Useful Resources

AS/NZS ISO 31000:2009 Risk Management—principles and guidelines

Australian Government. 2015. National PPP Policy Framework.

<https://infrastructure.gov.au/infrastructure/ngpd/files/National-PPP-Policy-Framework-Oct-2015.pdf>

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www.dtf.vic.gov.au/Publications/Investment-planning-and-evaluation-publications/Investment-management/Investment-logic-map-example-Initiative

New Zealand Treasury. 2016. Investment Management.

www.treasury.govt.nz/statesector/investmentmanagement

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www.treasury.govt.nz/statesector/investmentmanagement/plan/benefits/guidance/managingbenefits-guidance.pdf



NSW Government. 2015. Benefits Realisation Management Framework.

www.finance.nsw.gov.au/publication-and-resources/benefits-realisation-management-framework

Queensland Government. Community engagement. <http://www.qld.gov.au/web/community-engagement/guides-factsheets/>

Queensland Government. 2015. Project assessment framework. www.treasury.qld.gov.au/projects-infrastructure/initiatives/project-assessment-framework/index.php

Queensland Government. 2016. State Infrastructure Plan. <http://www.dilgp.qld.gov.au/infrastructure/state-infrastructure-plan.html>

Social licence resources:

- <http://sociallicense.com/>
- <http://learningforsustainability.net/social-license/>
- <http://accsr.com.au/>

Transport and Infrastructure Council Australia. 2016. Australian Transport Assessment and Planning Guidelines: T6 Benefits Management. <http://atap.gov.au/tools-techniques/benefit-management/index.aspx>

VicRoads. 2015. Evaluating Investment Outcomes (links to VicRoads Benefits Management Framework Version 2). www.vicroads.vic.gov.au/planning-and-projects/evaluating-investments



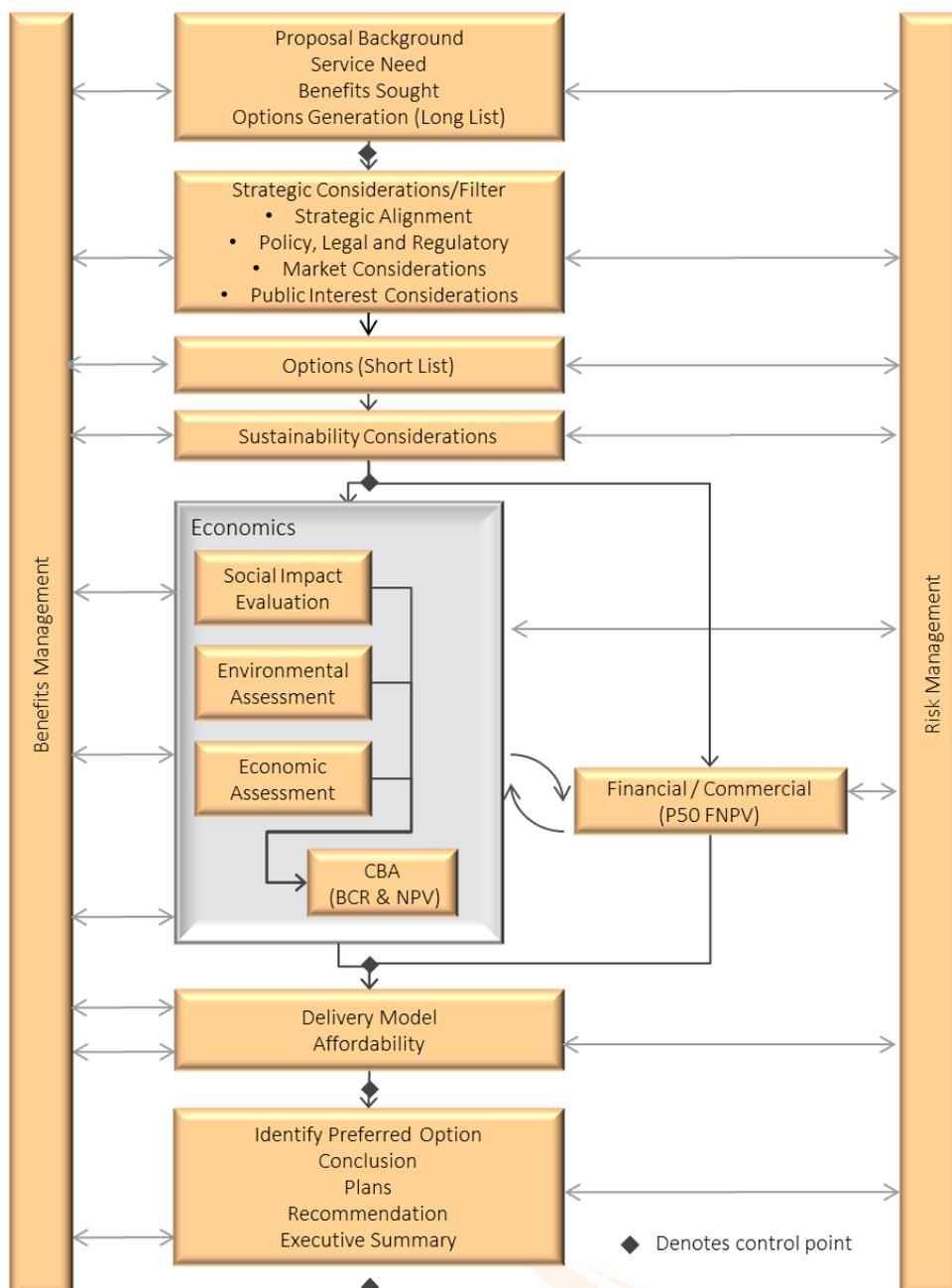
C. GUIDANCE FOR PREPARING A PRELIMINARY BUSINESS CASE

The following sections form the basis of a Building Queensland PBC. Although a Building Queensland PBC is expected to include all numbered sections from this point forward, the actual order of a PBC may vary subject to the type of investment and agency preferences. The order of sections is at the discretion of the proponent and author. A contents list of PBC sections is included in Appendix 1.

Control points should not be included in the final PBC document. If a task or section is not completed, the explanation for the omission should be included in the Methodology (Section 3).

It should be noted that Business Case development is **not a linear process**. Some activities will inform or refine other assessments, and information developed within sections of the PBC will link to other sections, as illustrated in Figure 5.

Figure 5: Development of the Preliminary Business Case





1. EXECUTIVE SUMMARY

The Executive Summary of a PBC provides an overview of the analysis undertaken and the key recommendations. At a minimum, include a summary of all material aspects of the PBC and the recommendations, as well as:

- a summary of service need and problem/opportunity statements
- a summary of outcomes and benefits sought
- a summary of options identified (long list) and assessment to establish a shortlist
- a summary of all assessments and an analysis of shortlisted options (risk, cost, economic, environmental, social, financial, funding, delivery and affordability) to support a recommendation
- recommendations for decision makers.

The Executive Summary is the last section written when developing a Business Case.

2. GOVERNANCE

This section outlines the governance arrangements for the proposed project. The governance structure and processes will vary subject to the complexity and risk of the subsequent project and the number of agencies with significant responsibilities in delivering the project. The governance section will be developed once the preferred option has been identified.

2.1. Proposal Owner

Outline the proponent including any project team structure and roles within the team structure.

2.2. Steering Committee

Outline the Project Steering Committee Terms of Reference and membership (if established).

2.3. Building Queensland

Outline the role of Building Queensland and the Building Queensland Board. Refer to the Building Queensland [Engaging with Building Queensland](#) documents for further guidance on collaborative governance arrangements.

3. METHODOLOGY

This section describes the approaches underpinning the overall PBC development process. Details of approaches for specific assessments (Sections 7 to 14) should be included in the relevant chapter to improve understanding of the process and contextualise the outcomes for those assessments.

3.1. Risk Approach

Describe the risk-management approach (refer to Section B (ii)) used to identify and refine options and select and design the Reference Project/s.

Note the risk approach used, and whether it is aligned with the agency's risk framework (or otherwise) and why. If the risk criteria deviate from the agency's standard, this section should include the risk likelihood and consequence ratings as well as the risk assessment matrix.

Description of the process used to identify and quantify/qualify risks. The Risk Register should be included as an attachment to the final PBC document.



3.2. Stakeholder Engagement Approach

Document the stakeholder engagement approach and activities (refer to Section B (iv)).

Provide details of identified stakeholders etc. in a high level Stakeholder Engagement Plan (example included in Appendix 4) and include as an attachment to the PBC.

3.3. Options Selection Approach

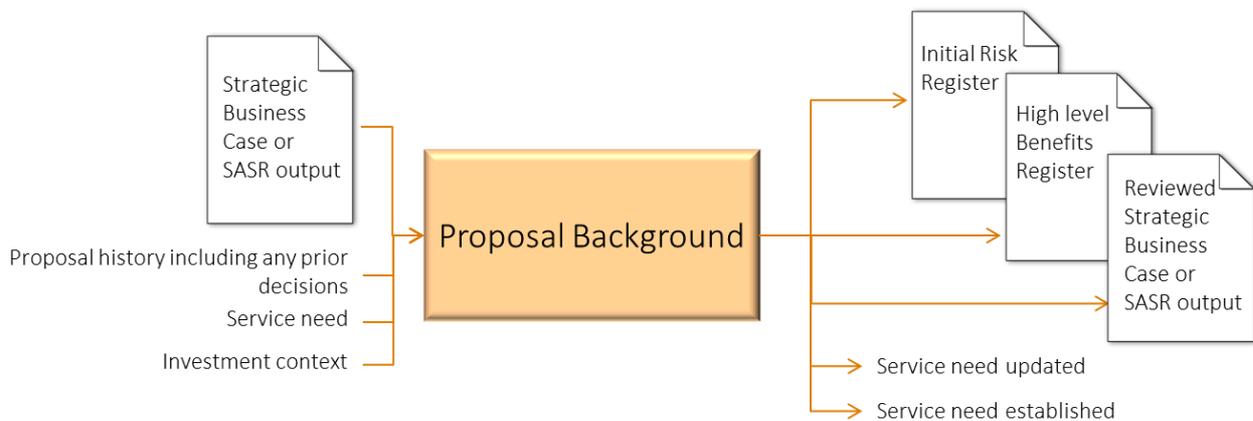
Provide information on the approach to options selection both for the options filtering and the identification of the preferred option/s. This assists the decision maker to understand how the preferred option/s was arrived at. Where a review of the SBC has resulted in changes to the shortlisted options progressed to the PBC this should be documented.

Document any assumptions underpinning the assessment of the shortlisted options which have not been included in specific chapters (e.g. CBA, SIE and financial analysis).

4. PROPOSAL BACKGROUND

This section captures the proposal's history. Figure 6 illustrates the inputs required to develop the Proposal Background section and the outputs that result from it.

Figure 6: Inputs and Outputs to the Proposal Background Section



Document:

- when a problem/opportunity was selected for consideration
- when the service need was first identified
- the location of the proposed project
- the investment context (political and strategic)
- a summary of prior decisions
- any independent assurance processes completed to support SBC development (e.g. Gateway Reviews).



4.1. Review of the Strategic Business Case

Review the SBC or output from a Strategic Assessment of Service Requirements (SASR) to confirm the service need and benefits sought. Document any material changes that have occurred since the SBC was prepared noting how they have been considered in the progression of the investment concept through the PBC. This may include:

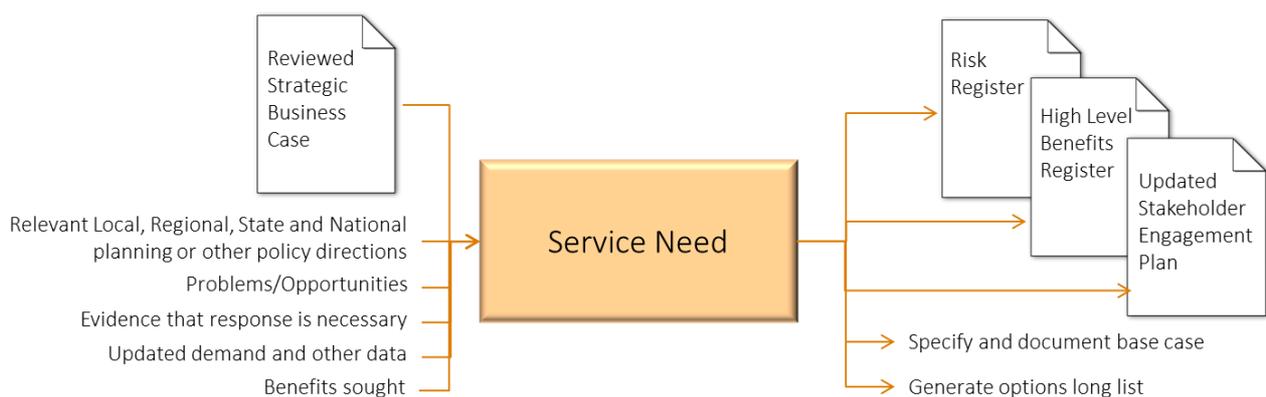
- planning and policy changes
- changes and impacts i.e.: strategic considerations/alignment/changes in government objectives
- changes to project objectives, scope, needs, benefits and risks
- changes to the environment (e.g. new initiatives/projects, emerging stakeholders, emerging opportunities, economic changes, and social and political changes)
- any concerns (and subsequent adjustments) regarding the age and validity of data used to justify the service need.

Consider the potential for momentum bias and, if appropriate, conduct an independent or peer review of the SBC analysis, outcomes and recommendations.

5. SERVICE NEED

This section should clearly articulate the service need to be addressed. It should be sufficiently robust to convey to decision makers the level of detail and planning which has been undertaken to support the identification of options. The service need may result from a problem or opportunity, and this section must include evidence of why it is necessary to address the problem or opportunity (i.e. an initiative developed in response to a current or future service need that may be 'nice to have' but is not supported by evidence that a response is **necessary** should not be progressed). Figure 7 illustrates the inputs required to develop the Service Need section and the outputs that result from it.

Figure 7: Inputs and Outputs to the Service Need Section



If an SBC was completed using the Building Queensland SBC template and guide, the problem identification and benefits sought sections should be reviewed, updated, reconfirmed and documented in Section 4.1. This is critical if significant time has elapsed since the SBC was prepared. Include a copy of the Investment Logic Map (ILM) if prepared. If an SBC was not prepared using the Building Queensland template and guide, it is recommended that the work required by the SBC be undertaken and the results presented in this section.



5.1. Current State

The 'current state' provides the decision maker with details of the service need, its context and characteristics. This section should document:

- the service need to be addressed
- the geographic and demographic reach of the service need including relevant maps and supporting graphics
- details of the stakeholders
- details of the impacts of the problem/opportunity economically, socially, financially and environmentally with evidence provided
- the timeframe for any potential impacts
- the 'root causes' of the problem and effects noting how the causes/effects are expected to change over time (worsen or improve)
- whether changes in service demand (anticipated or existing) will affect the problem/opportunity, with evidence provided
- what is expected to occur if the current state is maintained including making note of any benefits and adverse impacts (dis-benefits)
- any urgency in responding to the problem or seizing the opportunity
- details of any relevant planning works or feasibility studies undertaken (previous and ongoing), noting their scope, depth and results (including a copy of these documents or links to them)
- details of how the service need aligns with relevant strategic initiatives, regional and local plans, and the State Infrastructure Plan. If the involvement of Infrastructure Australia is likely to be sought, note of any matters of national significance
- a summary of related projects and their potential impact on the benefits to be leveraged from the project, noting any potential opportunities for integration/coordination
- any additional project objectives.

5.2. Stakeholders

Document information relating to the stakeholders for the preferred option/s. Stakeholders may include individuals, organisations or agencies (including other government agencies) who:

- may be impacted by the preferred option/s, specifically the underlying problem or failure to take up an opportunity
- can influence the design or delivery of the preferred option/s
- may potentially be disadvantaged if the preferred option/s is implemented; particular attention should be given to identifying stakeholders who belong to minority or disadvantaged groups
- are responsible for other projects or initiatives, which are not directly related to this proposal but could achieve enhanced benefits or improved outcomes from either effective integration with the preferred option/s or effective synchronisation to achieve further benefits (e.g. extended periods of construction employment or upgrading transport infrastructure to support a new hospital).



Information in this section should include:

- stakeholders' details—who they are, why/how they are interested, and the extent of their interest or influence is
- stakeholders' needs and expectations—both process and outcome; note any needs or expectations that are mandatory
- the most appropriate engagement mechanism for each stakeholder/stakeholder group (i.e. inform, consult or active participation)
- any risks of engaging (or not engaging) with stakeholders and how should 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 inform any modifications to stakeholder engagement activities. An SEP should be included as an attachment to the PBC.

5.3. Benefits Sought

Understanding the benefits to be sought when addressing the service need may include consider and documenting of:

- the intended outcome/s for the project and the benefits sought
- the stakeholders that may be affected/able to support achievement of the intended outcomes/benefits
- 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 benefits sought
- any dependencies that have been identified
- an indication of the criticality of the intended outcomes and benefits sought
- any conflicts or opportunities for collaboration between stakeholders
- potential dis-benefits and risks to achieving the benefits (include this information in the Risk Register).

Details of benefits sought will be refined during PBC development and should be included in the Benefits Register and included as an attachment to the finalised PBC.

5.4. Potential Initiatives

Document the potential initiatives that could address the service need (identified in the SBC). Include:

- the outcomes and benefits the initiatives are expected to achieve, indicating the extent of that expected achievement
- any dependencies, enablers or changes required for the initiative to be implemented (including non-infrastructure investments).



If a Building Queensland SBC was completed, a range of potential initiatives would have been identified and grouped into the following four categories:¹

- Reform—typically non-asset initiatives
- Better use—typically improving service performance
- Improve existing—typically low-cost augmentation
- New—typically new assets.

A review of the potential initiatives should consider whether any of the initiatives identified in the SBC need to be deleted, modified or added to (refer to Section 4.1). Changes, and a justification for the change, should be documented in this section. Include a copy of the ILM and Initiative Map in an attachment where available (refer to the SBC for further information).

5.5. Base Case

Development and analysis of a base case is essential as it is the benchmark against which the shortlisted options are assessed. Therefore, the base case must be tightly specified and modelled on a whole-of-life basis, including all expected impacts, expenditures and benefits. A well-articulated base case:

- provides decision makers with information about what situation will exist if the proposed investment, policy change or project is not approved
- highlights the ongoing impacts that would be reasonably expected or forecast to occur in the absence of any intervention.

Base cases documented using the Building Queensland BCDF must:

- consider maintaining specified service levels provided by existing infrastructure
- account for any actions which will be required in future to ensure service levels are reasonably maintained. Full lifecycle costs required to maintain those service levels must be accounted for.

Cost accountants, reporting units and portfolio analysts within the agency should be consulted during the identification and specification of the base case.

Unlike the articulation of the current state (Section 5.1) the base case is not a ‘zero spend’ or ‘dummy’ option. Further information regarding the development and documentation of a base case is available in Section 5.2.1 of the [Cost Benefit Analysis Guide](#).

¹ Queensland Government State Infrastructure Plan. 2016. <http://www.dilgp.qld.gov.au/infrastructure/state-infrastructure-plan.html>



CONTROL POINT 1

Before progressing the PBC, complete the following checklist. If an item has not been completed, include an explanation in the Methodology (Section 3).

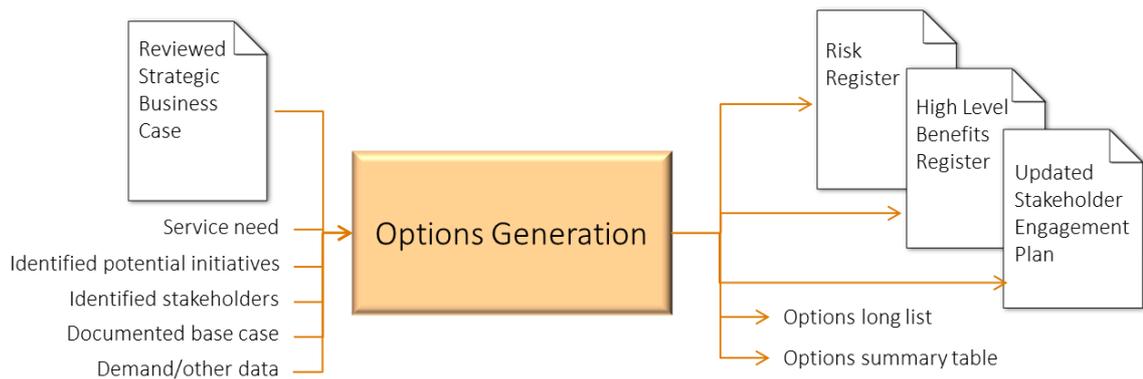
CONTROL POINT 1				
#	Have the following been completed?	Section	Yes	No
1	Governance arrangements documented	2		
2	Risk approach documented including the approved criteria and risk matrix—refer to Section B (ii)	3.1		
3	Stakeholders identified and engagement approach approved and documented (if not previously completed)—refer to Section B (iv)	3.2		
4	Proposal background documented	4		
5	SASR/SBC and/or other previous work reviewed			
6	Material changes since the SASR/SBC was completed documented	4.1		
7	Service need documented (note any changes since the SBC)	5.1		
8	Stakeholders identified and documented	5.2		
9	Benefits documented (note any changes since the SBC)	5.3		
10	Potential initiatives developed in the SBC documented (if SBC completed)	5.4		
11	Base case defined – refer to CBA and SIE Guides for additional guidance	5.5		
12	Benefits Register updated—refer to Section B (ii)	Appendix 2		
13	Risks associated with Sections 3, 4 and 5 assessed and documented	Appendix 3		
14	All sources of evidence underpinning the service need, base case or options included in the reference list for the PBC	21		
#	Critical decision points	Section	Yes	No
1	Has the service need been reviewed to confirm that it continues to exist?	5		
2	Is the proposal still valid in light of any changes to the general environment, underpinning demand data or the implementation of other programs/initiatives since the SBC was finalised?	5.4		
3	Is the proposal subject to momentum bias?			



6. OPTIONS GENERATION

This is a critical section of the PBC as it generates a list of project options (solutions) upon which the analyses will be completed. It also provides clarity and a common understanding of the range of options being considered, and transparency and confidence that the recommended options will deliver the benefits sought. Figure 8 illustrates the inputs required to develop the Options Generation section and the outputs that result from it.

Figure 8: Inputs and Outputs to the Options Generation Section



6.1. Approach

There is typically more than one way to solve a problem. As infrastructure is ultimately built to deliver a service, non-asset solutions to service needs (such as policy reforms or the better use of existing infrastructure) should be explored as a priority before asset-based solutions are considered.

When generating options, a three-step approach is recommended:

- For each of the potential initiatives identified in the SBC, consider what activities are necessary to implement that initiative. This should include non-asset initiatives (i.e. reform and better use initiatives). Consider all enabling activities or underlying requirements (e.g. legislative change to enable the initiative to progress, resources and capabilities).
- Consider possible solutions from the broadest possible view including those outside the agency's direct influence (e.g. a future congestion issue could be addressed by alternate mode solutions such as a new railway, by increasing economic development strategies in another region or providing opportunities for telecommuting).
- Consider how the potential initiatives might be packaged, i.e.:
 - a continuum of options that escalate in terms of complexity and resources required
 - packages which combine multiple activities/strategies to respond to a particular aspect of the service need (e.g. a transport option might seek to amend legislation to implement a congestion tax while concurrently enhancing public transport, while another option might focus on regional economic development to reduce commuting).



6.2. Options Long List

Document the options, including:

- description
- outcomes and benefits to be achieved
- infrastructure and non-infrastructure requirements
- stakeholders affected or required
- timeframe
- scalability
- potential adverse impacts (dis-benefits) and risks.

To ensure the decision maker has a broad understanding of the options' features, a detailed description of each option should include (where relevant):

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

Full details of the (long list) options should be included as an attachment to the PBC. A summary of the options is included in the body of the PBC. An example options generation table is included in Table 2.

Table 2: Example Option Generation Table

OPTION GENERATION		
Option	Option Category	Option Description
Option 1–Do Minimum (this options constitutes a proactive attempt to respond to the service need not a base case (maintain service standards))	Reform/better use	Status quo plus: <ul style="list-style-type: none"> ▪ implement a driver education campaign ▪ introduce variable speed signs ▪ use emergency lanes during peak hour
Option 2–Demand Management (peak hour)	Improve existing	Build road tolling infrastructure and influence demand through time of day tolling
Option 3–Demand Management (all day)	Improve existing	Build road tolling infrastructure and influence demand through flat rate tolling
Option 4–Improve Access to Public Transport	Improve existing	Increase bus services to stations and introduce standing options in train carriages
Option 5–Enhance Public Transport	New build	Construct a third railway track
Option 6–Enhance Road Corridor	New build	Build additional road lane in each direction



7. HIGH LEVEL CONSIDERATIONS/OPTIONS FILTER

This is an important section of the PBC as it:

- filters (if required) a long and potentially unmanageable list of options into a shorter list prior to assessments commencing
- provides an opportunity for the options to be refined in light of the strategic, legal/regulatory, market, public interest and sustainability considerations, reducing the risk (and cost) of conducting assessments on unsuitable options
- ensures that all options that undergo social, economic, environmental and financial assessments (Sections 9 to 12) are strategically, legislatively and practically sound.

This section therefore, supports both:

- options generation—if a large and unmanaged number of options have been identified and must be reduced
- options analysis—by ensuring that the options are strategically, legally and practically viable (in terms of market and public interest considerations).

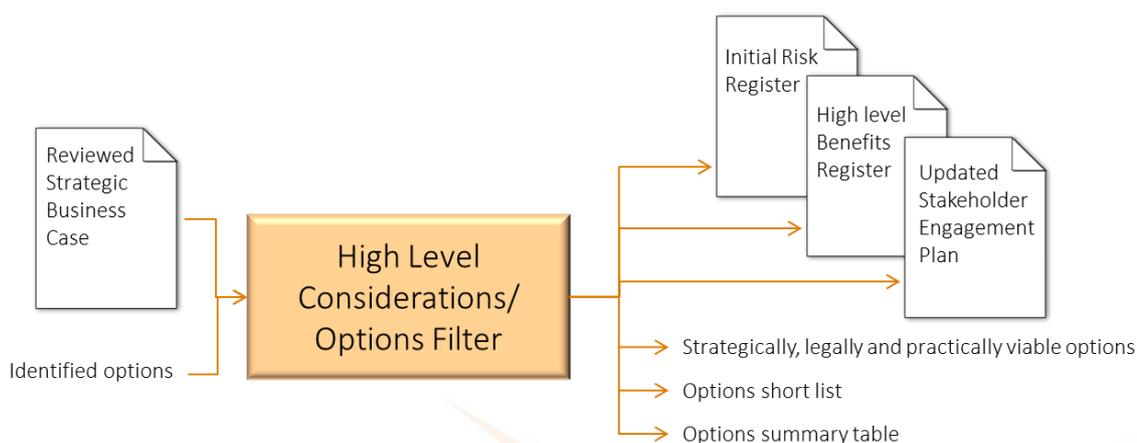
If a large number of options are identified in Section 6.1, filtering those options supports efficient planning and decision making by directing resources into options that are more likely to be successful. Where filtering is required, the options long list should be progressively reviewed using the high-level considerations in this section, with options discarded if they are found to be unsuitable. If all options in the long list progress through the considerations, a final filter should be used to reduce the options to a manageable number (refer to Section 7.6).

Where a manageable number of options were identified in Section 6.1, all options should undergo strategic, legal, market and public interest assessments, with the options being adjusted (or discarded) as a result of those reviews.

The high-level considerations in this section are considered to be ‘first-order conditions’. If an option does not ‘pass’ the considerations in this section, it should be discarded. Where all options fail the considerations, the proposal should be rethought.

Figure 9 illustrates the inputs required to develop the High-Level Considerations section and the outputs that result from it.

Figure 9: Inputs and Outputs to the High-Level Considerations Section





7.1. Strategic Considerations

Document any relevant strategic considerations, including:

- strategic alignment to state, federal and local government programs and strategies
- any agency or government policy considerations which may impact on the identified options
- projects/initiatives not directly related but which may benefit or enhance benefits if the planning and delivery were integrated to achieve additional/greater outcomes.

Include an assessment and comparison of potential impacts on the identified options if appropriate.

The impacts of strategic considerations should be reflected in the environmental assessment, the social impact evaluation, the risk assessment and, if required, in the project cost estimates.

7.1.1. Strategic Alignment

- Consider how the options fit with, or contribute to, strategic objectives of the agency and government, and the relevant national objectives and programs (where appropriate).
- Describe the strategic alignment—how the options will align (or not align) and their potential contribution to that strategy, program or plan.
- Consider the fiscal environment and industry context.

Options that fail to align strategically should either be discarded or adjusted.

7.1.2. Policy Issues

- Describe the impact, if any, of existing policies and standards on the identified options (or vice versa) within the government, agency and relevant stakeholder environments.
- Document any limitations imposed by the policies and standards and the known effect on the identified options (such as any impact to benefits).

Impacts and limitations identified should be further characterised as either an advantage or a disadvantage.

Options that conflict with established policy should either be discarded or adjusted.

Discard or adjust options based on the results of this review. This is particularly relevant for those options where the results impact negatively on the benefits sought or create dis-benefits that cannot be effectively managed.

Update the Benefits Register, Risk Register and Stakeholder Engagement Plan in response to the outcomes of this review.

Any additional costs incurred to address specific policy or standard requirements should be shown in the PBC's costing summary (Section 12).



7.2. Legal and Regulatory Considerations

Document any legal and regulatory considerations and the potential impact of these considerations on the remaining identified options.

The impacts of legal and regulatory considerations should be reflected in the environmental assessment, the social impact evaluation, the risk assessment and, if required, in the project cost estimates.

7.2.1. Legislative Issues

Document any specific legislative requirements or issues (both existing and foreshadowed) relevant to the remaining identified options (or the ongoing operation of the options) that may prevent, impede or have a significant impact. This may include items such as state and federal government agreements, planning, approvals, environmental considerations, and native title or cultural heritage considerations.

Options that fail to meet legislative requirements should either be discarded or adjusted.

7.2.2. Regulatory Issues

Document any regulatory considerations relevant to the remaining identified options that may prevent, impede or have a significant impact. This may include matters that influence market competition such as competition/pricing matters or jurisdictional responsibilities.

Regulatory issues may include considering guidelines and existing or anticipated directives issued by a Regulator (e.g. ‘Guidelines on Acceptable Flood Capacity for Dams’ issued by the Chief Executive of the Department of Energy and Water Supply). Other considerations may include matters that influence market competition or jurisdictional responsibilities.

Options that fail to meet regulatory requirements should either be discarded or adjusted.

7.2.3. Approvals

Identify and document any approval processes which may impact on the remaining identified options, noting any timing considerations or potential impediments to approvals. Early engagement with other departments and regulatory agencies may assist in identifying approval requirements.

An approval matrix should be included to provide a summary of the permits, approvals or licences that may be triggered during the project, along with a description, timing and the responsible authority for each (see example in Table 3).

Options that have identified approvals issues should either be discarded or adjusted.

Table 3: Example Approvals Matrix

APPROVALS MATRIX				
Approval	Type	Description	Timing	Responsible Authority
Approval 1	Permit			
Approval 2	licence			
Approval ...				

Example only



As legislation and policy requirements will be revised after completion of the DBC, determining the actual suite of approvals permits and licences will require further revision of the approvals matrix as the project progresses.

7.2.4. Other Legal Matters

Include any other legal matters which may influence the options, for example:

- standing agreements and existing contracts that may require renegotiation or payment of compensation, or may restrict the actions of the government or agency (e.g. competitive dealings)
- agreements or contracts that are in the process of being finalised or renegotiated
- contractual disputes
- claims by third parties, including native title and cultural heritage claims
- court decisions that may impact the legislative powers of government
- legal or contractual issues associated with the proposed delivery strategy.

Discard or adjust options based on the results of the legal/regulatory considerations review. This is particularly relevant for those options with results that impact negatively on the benefits sought or create dis-benefits that cannot be effectively managed.

Update the Benefits Register, Risk Register and Stakeholder Engagement Plan in response to the outcomes of this review.

Any additional costs incurred to address legal, regulatory or approval requirements should be shown in the PBC's costing summary (Section 12).

7.3. Market Considerations

Document the key market considerations and assumptions relating to the options. These considerations and assumptions will support decision making when developing a preliminary procurement strategy and identifying opportunities and risks related to procurement. Information may include:

- market information regarding the bid depth, market risk appetite, availability of contractors and any other major projects in the pipeline
- feedback on matters such as project scope and specification using the options, and any opportunities for design and construction innovation.

Subject to the nature of the investment, early market engagement during options generation may be necessary to enable effective options design. Critically evaluate information provided by the market, particularly where there is different or inconsistent market feedback and response. Take care to ensure that participants' expectations regarding implementation of the project or specific options are managed appropriately and with due regard for probity. Queensland Treasury can assist with the development of a Market Sounding Plan if required.



The impacts of market considerations should be reflected in the deliverability assessment, the environmental assessment, the social impact evaluation, the risk assessment and the project cost estimates.

7.3.1. Market Sounding Approach and Objectives

Market sounding refers to the collection of activities undertaken to explore the range of solutions and determine the market appetite for involvement in the potential options. Document the market sounding objectives and approach, including the rationale for the particular approach adopted. Objectives may include:

- obtaining market information including market bid depth, market risk appetite and the availability of contractors
- acquiring feedback on matters such as project scope and specification, the opportunity for design and construction innovation, timeliness for the bidding process and bidder selection criteria
- providing information to the market (e.g. on project requirements).

For the PBC this will typically only involve desktop research and informal meetings. If required, a formal Request for Information (a formal structured engagement with industry) may be undertaken, however, in most cases, a formal approach is most appropriate for a DBC.

Preliminary market sounding may be undertaken to provide the information needed to filter or refine the options design.

7.3.2. Market Feedback

Where a structured, formal engagement process is undertaken, document the market feedback received in relation to all matters raised and canvassed. Feedback typically includes:

- feedback on options and risk allocation
- market preference on size and staging (work packages).

7.3.3. Assessment of Market Capability

Provide a summary of the market capability as it relates to the options including delivery or financing options. Consider local market engagement 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 cost and risk assessment and the delivery model assessment.

Discard or adjust options based on the results of the market considerations review. This is particularly relevant for those options where the results impact negatively on the benefits sought or create dis-benefits that cannot be effectively managed.

Update the Benefits Register, Risk Register and Stakeholder Engagement Plan in response to the outcomes of this review.

Any additional costs incurred to address market considerations should be shown in the PBC's costing summary (Section 12).



7.4. Public Interest Considerations

An assessment on whether the identified options are in the public interest provides:

- the reader of the PBC with information on whether each option will provide (perceived or real) equitable outcomes for all stakeholders
- an opportunity for any potential negative impacts of the option to be managed and, where possible, the option adjusted to mitigate those risks or realise the opportunities
- the facility to compare options on the matter of public interest.

Document the outcomes of an assessment on whether the identified options are in the public interest focusing on:

- impacts on stakeholders
- public access and equity
- consumer rights
- safety and security
- privacy.

Also consider:

- any public interest deficiencies
- the planned approach to address these deficiencies
- any alternative options.

Public interest issues may also be identified during a community consultation process, an environmental assessment, a social impact evaluation, a financial analysis or a regional impact analysis.

The impacts of public-interest considerations should be reflected in the deliverability assessment, an environmental assessment, the social impact evaluation, the risk assessment and the project cost estimates.

7.4.1. Community Consultation/Stakeholder Engagement

Document any community consultation and stakeholder engagement activities undertaken to identify public interest matters. Describe:

- the community consultation or stakeholder engagement approach
- community consultation and stakeholder engagement activities undertaken—such as information sessions, surveys, workshops and working groups
- social licence status—disapproval, tolerance, endorsement or advocacy from the community
- overall engagement outcomes
- any next steps or further consultation required.



The process involves confirming the impacts on all stakeholders (the community, service delivery partners etc.) and understanding any new concerns. The consultation process should seek to understand whether the project would be likely to receive a 'social licence to operate' from the community. If not, consider whether it is worthwhile to progress. Potential remedies to any issues raised should be integrated into the options design.

7.4.2. Impact on Stakeholders

Assess each option for its potential impact on stakeholders, including individuals and communities. Include a list of stakeholders, their area of interest/impact and any engagement actions required. Areas of public interest may include:

- property impacts
- environmental concerns
- access or use changes.

7.4.3. Public Access and Equity

Public access and equity involves ensuring that services are available to all groups within society who require those services. The 2011 [Australian Government Access and Equity Panel states](#):

Access means that Australian Government services should be available to all Australians who are entitled to receive them. Equity means that the Australian Government should respond to and cater for the diversity of clients' needs to achieve equitable outcomes. Equity recognises that cultural diversity principles should be incorporated into the design and implementation of program and service delivery.

Each option should be reviewed to ensure its design allows all groups within society to effectively realise its expected benefits. Documentation should include a list of any disadvantaged groups who may use the infrastructure or service and how they will use it. If applicable, identify any areas of potential inequity of access caused by the proposed location or pricing of services and any social and economic impacts. Options reviewed should be redesigned to remove potential causes of inequity where possible.

7.4.4. Consumer Rights

[Consumer rights](#) are the legal and moral duties of protection owed to a purchaser/user of goods or services by the supplier. Consumer rights generally include:

- right to safety
- right to be informed
- right to choose
- right to be heard.

Document any potential consumer rights impacts identified for each option. In particular, outline where each option does or does not provide sufficient safeguards, particularly for those to whom government has a higher duty of care. This is beyond any legal obligation, given government's broad responsibility to the community and service recipients.



7.4.5. Safety and Security

Safety and security considerations include corruption, crime, public-health risk, quality and security of supply. All options should be assessed for any potential security and community safety issues.

Security of supply is a particular concern when the market is immature.

7.4.6. Privacy

Document any potential privacy issues for each option to provide assurance that user rights to privacy are protected. Government obligations, whether in relevant legislation or government policy, should also be highlighted. Privacy obligations can be located at: www.business.qld.gov.au/business/starting/legal-obligations/protecting-privacy-information/privacy-laws.

Discard or adjust options based on the results of the public-interest considerations review. This is particularly relevant for those options where the results impact negatively on the benefits sought or create dis-benefits that cannot be effectively managed.

Update the Benefits Register, Risk Register and Stakeholder Engagement Plan in response to the outcomes of this review.

Any additional costs incurred to address public-interest considerations should be shown in the PBC's costing summary (Section 12).

7.5. Sustainability Considerations

The [Infrastructure Sustainability Council of Australia](#) defines infrastructure sustainability as: 'Infrastructure that is designed, constructed and operated to optimise environmental, social and economic outcomes of the long term'.

Furthermore, it notes: 'Infrastructure is crucial to sustainability in both its role in configuring society and the way it functions as well as the way infrastructure is planned, designed, constructed, operated and adapted'.

Sustainability considerations in options analysis:

- support the effective use of resources
- allow investments to be 'future-proofed'
- encourage innovation in options design
- provide assurance to decision makers that decisions are based on a comprehensive view of economic, social and environmental considerations
- enable the analysis of cost and benefits to include sustainability factors.

Assessing sustainability early in the project lifecycle will result in improved sustainability outcomes.

The impacts of sustainability should be reflected in the deliverability assessment, the environmental assessment, the social impact evaluation, the risk assessment and the project cost estimates.



7.5.1. Sustainability Topics

Each option should be reviewed in light of its potential contribution to sustainability goals i.e.²:

- a diverse and resilient economy
- higher levels of productivity and economic efficiency
- increased trade or exports
- more competitive industries
- fairer distribution of income
- improved public safety
- social cohesion and inclusion
- equity
- preserving healthy landscapes
- reducing the loss of habitat and biodiversity
- increasing the efficient use of energy and water resources
- protecting sites with heritage, Indigenous and cultural values
- enhancing the liveability and amenity of urban centres.

Consider whether the options:

- contribute to sustainability challenges
- result in better coordination
- provide a more efficient and effective outcome (where the option includes packaged initiatives)
- can be broadened to achieve enhanced outcomes.

Discard or adjust options based on the results of the sustainability considerations review. This is particularly relevant for those options where the results impact negatively on the benefits sought or create dis-benefits that cannot be effectively managed.

Update the Benefits Register, Risk Register and Stakeholder Engagement Plan in response to the outcomes of this review.

Any additional costs incurred to address sustainability considerations should be shown in the PBC's costing summary (Section 12).

² Infrastructure Sustainability Planning Guidelines. 2016. Infrastructure Sustainability Council of Australia.



7.6. Final Filter

If the high-level filtering has not reduced the list of options to a manageable number the remaining options should be assessed against underlying drivers to produce a shorter list of viable options. This may include ranking the options by:

- the extent to which an option addresses the service need
- the extent to which an option can be expected to achieve the benefits sought—informed by the rankings from the SBC
- risk—informed by the Risk Register
- scope—informed by details in Section 6.2
- potential sustainability considerations (refer to Section 7.5).

7.7. Options Filter Summary

Document the shortlisted options and describe the reasons for shortlisting or discarding each option. Table 4 provides an example shortlisting table for identifying which options will be further assessed in the remaining sections of the PBC.

Regardless of the methodology used to filter, document the assumptions, sources of information, and the basis of calculations underlying all aspects of the options filtering. The recommendation should be clearly presented and state why the agency, government and community will benefit.

Table 4: Example Summary Table for Options Filtering

SHORTLISTED OPTIONS		
Option	Initial Assessment	Recommended for Further Consideration
Option 1—...	This option must be taken forward for further analysis. It also serves as a baseline for comparing the net impact of each asset based option.	✓
Option 2—...	Taken forward as ...	✓
Option 3—...	Taken forward as ...	✓
Option 4—...	Taken forward as ...	✓
Option 5—...	Taken forward as ...	✓
Option 6—...	Dismissed due to ...	✗



8. OPTIONS SHORT LIST

This section should provide clear details of each remaining option including:

- intended outcomes—what the option will accomplish (i.e. objective/s, benefits), specifically noting how the benefits to be achieved by the options compared to the benefits sought (Section 5.3)
- scope—inclusions and exclusions and how the option will address the service need
- a description of how the shortlisted options would be implemented
- any dis-benefits of the options
- requirements for complementary infrastructure and/or opportunities for integration/coordination with other projects
- any infrastructure components of the options, canvassing a number of technical solutions and engineering possibilities.

Conduct a risk assessment of the shortlisted options. Further details about risk assessment are available in the [Business Case Development Framework—Overview](#) document.

Shortlisted options may be ranked according to how much they contribute to the benefits sought. An initial Benefits Management Plan may be developed for each option, if appropriate. The initial Benefits Management Plan should include details of:

- benefit description
- benefit owner
- anticipated beneficiaries
- stakeholders
- KPIs/measures
- dependencies
- high-level activities and timeframes to achieve the benefits
- reporting requirements.

Benefits management plans will shape the scope and design of the options.

Give preliminary consideration to budgetary impacts and to potential government (local, state and federal) funding sources for the shortlisted options. Queensland Treasury must be consulted.

Update the Benefits Register, Risk Register and Stakeholder Engagement Plan in light of the shortlisted options.

Costs or benefits of each option should be reflected in the economic and financial analyses.

A Benefits Management Plan may be developed if appropriate.



CONTROL POINT 2

Before progressing the PBC complete the following checklist. If an item has not been completed, include an explanation in the Methodology (Section 3).

CONTROL POINT 2				
#	Have the following tasks been completed?	Section	Yes	No
1	List of options generated and documented	6		
2	Strategic alignment, policy, legislation and regulations that may impact on options (or vice versa) documented	7.1 and 7.2		
3	Market considerations reviewed and documented	7.3		
4	Summary of the community consultation and stakeholder engagement process and outcomes documented	7.4		
5	Public-interest impacts of the options considered and documented	7.4		
6	Sustainability considerations documented	7.5		
7	Options amended or discarded in the light of the high-level considerations	7		
8	Options filtered to a manageable number	7.6		
9	Shortlisted Options Summary Table completed	7.6		
10	Shortlisted options documented	8		
11	Methodology updated to document options filtering	3.3		
12	Benefits Register updated (refer to Section B (i))	Appendix 2		
13	Risk Register update in light of Sections 6 and 9 (refer to Section B (ii))	Appendix 3		
14	Stakeholder Engagement Plan updated.	Appendix 4		
15	All sources of evidence underpinning the service need, base case or shortlisted options included in the reference list for the PBC	21		
#	Critical decision points	Section	Yes	No
1	Have any strategic, legal/regulatory, market or public interest considerations been identified which could result in the shortlisted options not proceeding?	7		
2	Are the options still valid in light of any changes to the general environment, underpinning demand data or the implementation of other programs/initiatives since the SBC was finalised?			
3	Are any of the assessments impacted by optimism bias?			
4	Is the proposal subject to momentum bias?			



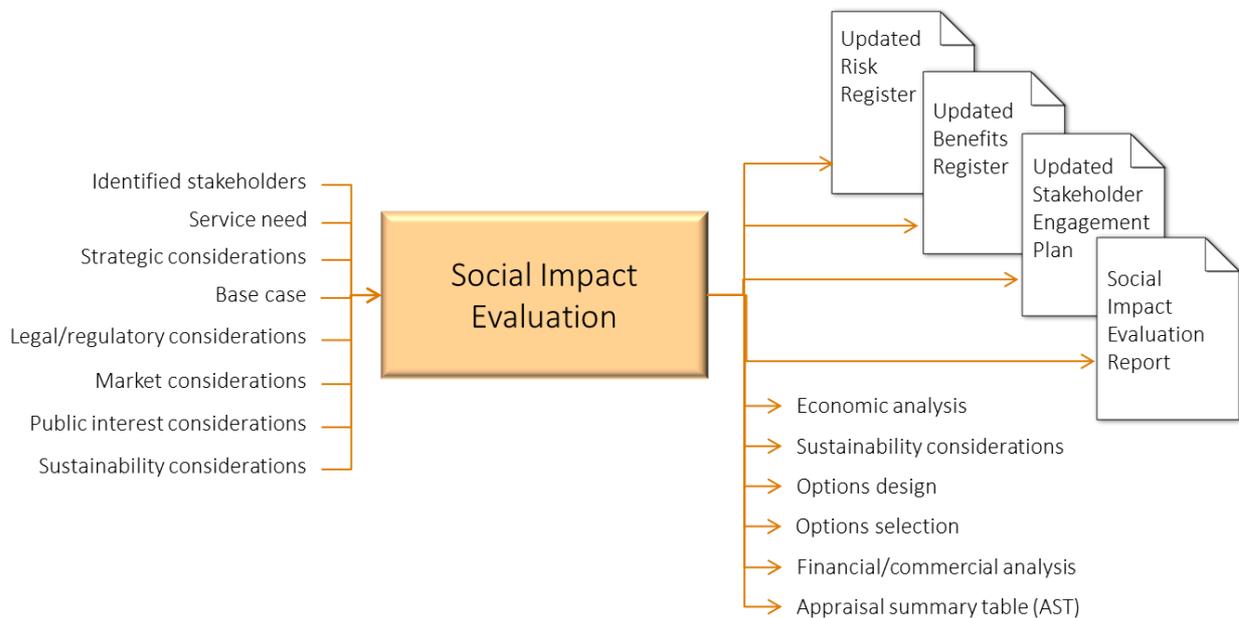
9. SOCIAL IMPACT EVALUATION

Document the social impacts of the shortlisted options. This ensures that social impacts arising from the options are clearly identified and accounted for in the decision making process. Further details are available in the [Social Impact Evaluation Guide](#).

The SIE is completed before the economic, environmental and financial analyses as it provides valuable input into those assessments. The lens through which the evaluation is completed is purely focused on social impact. For the PBC, the social impacts of shortlisted options should be identified and described in detail (compared with the base case documented in Section 5). Completing an SIE enables the options to be ranked according to their social impact.

Figure 10 illustrates the inputs required to develop the Social Impact Evaluation section and the outputs that result from it.

Figure 10: Inputs and Outputs to the Social Impact Evaluation Section

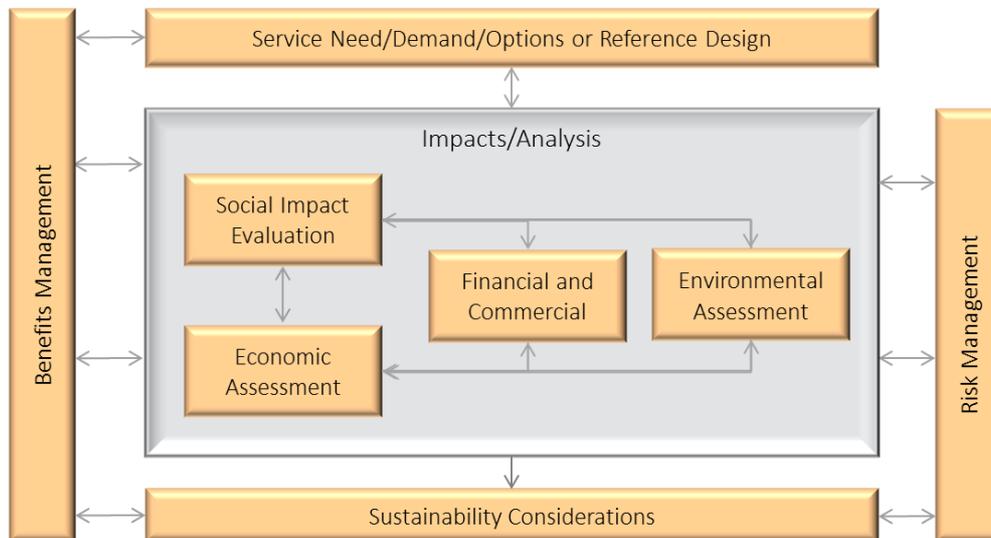


The SIE and subsequent economic, environmental and financial analyses **do not** have a linear relationship; all analyses contribute to each other as illustrated in Figure 11. For example, the SIE can be updated in light of the economic and financial analyses.

Identified social impacts are further investigated using a risk matrix. The risk matrix informs the Risk Register and vice versa. In addition, the SIE provides input to the benefits-management process and can be informed by the outcomes of benefits management for similar projects.



Figure 11: Relationship Between the SIE and Other Elements of the Business Case



9.1. Approach

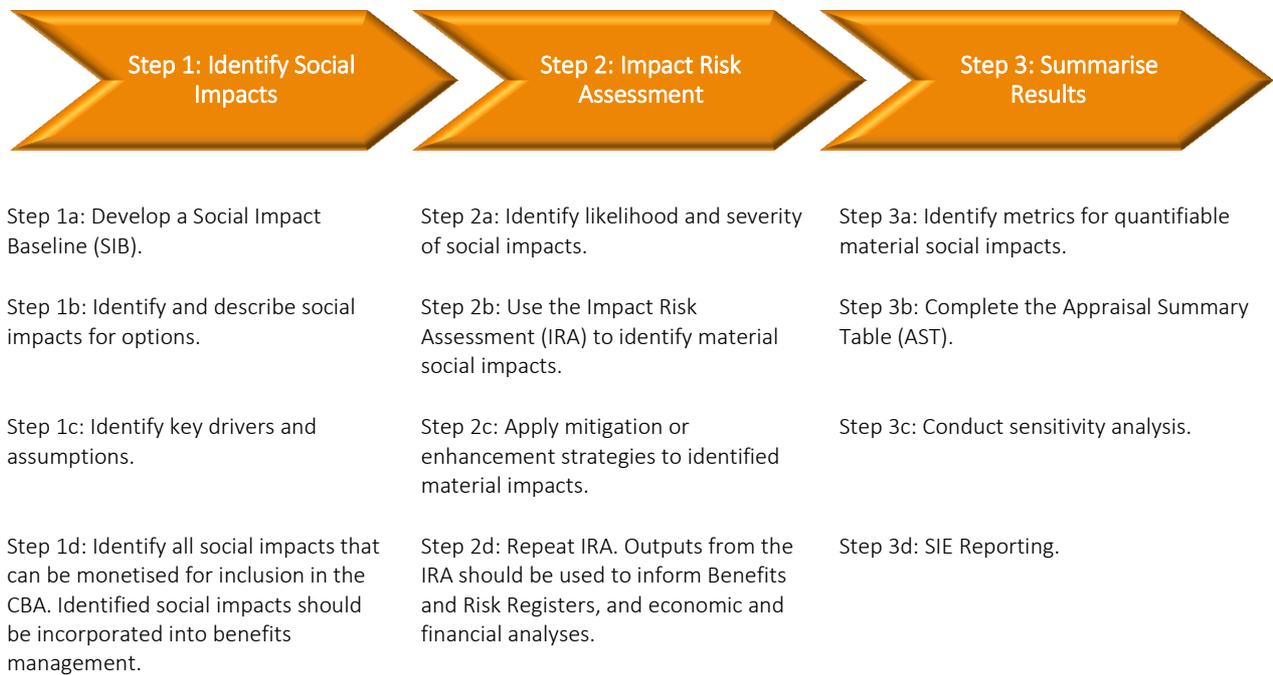
Conduct an SIE for projects that do not have an Environmental Impact Assessment (EIA) which includes a Social Impact Assessment (SIA). If an SIA has been conducted, the results of the SIA should be reported in this section and a full SIE is not required.

Acknowledging that quantification of social impacts can be difficult and costly, efforts should be made to quantify/monetise as many social impacts as possible for inclusion in the CBA. Where quantification is not undertaken, explain why in the Approach section of this chapter. It is useful to include a brief description of the steps required to quantify social impacts for future reference. Quantification of social impacts must be consistent across all options being assessed.

Building Queensland has developed a three-step process for evaluating social impacts in the development of Business Cases (illustrated in Figure 12). Further details on completing an SIE, including Impact Risk Assessments (IRA), can be found in the Building Queensland [Social Impact Evaluation](#) Guide and the [Cost Benefit Analysis](#) Guide.



Figure 12: The SIE Three Step Process



9.2. Identify Social Impacts

Sources and approaches to identifying the social impacts include:

- previous projects
- existing literature
- stakeholders (refer to Table 5 for an example of when stakeholders might be engaged in social impact evaluation)
- internationally accepted categories of social impacts
- categorisation of social impacts that can or cannot be monetised.

Note any impact of public interest considerations raised in Section 7.

Project-related social impacts can be grouped into eight categories: lifestyle impacts, cultural impacts, political systems, community impacts, quality-of-life impacts, health impacts, personal and property rights, and intergenerational impacts.



Table 5: Example Stakeholder Involvement in the Social Impact Evaluation

STAKEHOLDER INVOLVEMENT		Recommend Involvement	Could be involved
Plan	Establishing scope		✓
	Identifying stakeholders	✓	
	Decide how to involve stakeholders		✓
Develop analysis	Identifying inputs		✓
	Valuing inputs		✓
	Clarifying inputs		✓
Data collection	Collecting outcome data		✓
	Establishing how long outcomes last		✓
Conduct analysis	Putting a value on the outcome		✓
	Analysing deadweight and displacement	✓	
	Attribution	✓	
	Drop-off	✓	
	Verification	✓	
Results	Using the results	✓	

Example only

9.3. Evaluation

Identified social impacts can be divided into three categories:

- social impacts that can be quantified and monetised (include in the CBA)
- social impacts that can be quantified and not monetised
- social impacts that cannot be quantified nor monetised.

The relationship between social impacts and the evaluation approach to be applied is illustrated in Table 6.

Table 6: Relationship Between Social Impacts and Approach

RELATIONSHIP BETWEEN SOCIAL IMPACTS AND APPROACH			
	Quantified	Monetised	Approach
Social Impacts	✓	✓	Include in CBA, SIE, benefits management, and Risk Register
			Include in SIE, benefits management, and Risk Register
	✓		Include in SIE, benefits management, and Risk Register

Evaluate the options by:

- determining whether each identified social impact can be quantified and monetised
- determining the appropriate evaluation approach for each social impact
- ensuring all social impacts that can be monetised are incorporated into the CBA (Section 11)
- ensuring all social impacts that cannot be monetised undergo an Impact Risk Assessment (IRA).



9.4. Impact Risk Assessment

An IRA must be undertaken on the social impacts that cannot be monetised. Social impacts that can be monetised should also be included in the CBA. Guidance on undertaking an IRA is provided in the SIE Guide.

On completion of the IRA, strategies can be developed to address predicted negative social impacts and enhance potential positive impacts. An estimate of the remaining social impacts after implementation of these strategies should be reported for each option.

The results of the SIE should be reflected in the overall risk assessment for options and incorporated in the multi-criteria assessment to assist in selecting an option to be carried forward to the DBC.

Note any impacts on benefits or emerging dis-benefits and document any adjustments necessary to the shortlisted options.

Update the Stakeholder Engagement Plan if necessary.

Update the Benefits Register and Risk Register if required.

9.5. Appraisal Summary Table

The social impacts identified in the IRA should be combined with the results of the CBA and the environmental assessment into an Appraisal Summary Table (AST). An AST is a summary of key consequences relating to the environmental, economic, financial and social impacts of a project. It is used to help decision makers compare project options and/or projects. The AST approach has been adopted from the UK Transport Analysis Guidance (2013).

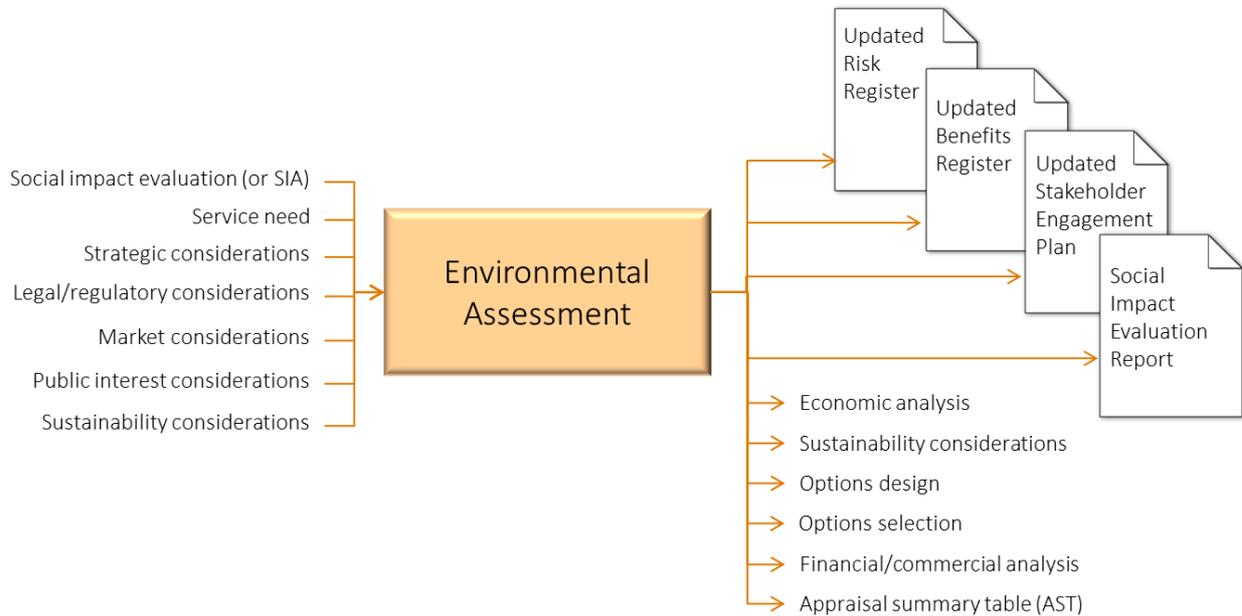
10. ENVIRONMENTAL ASSESSMENT

Document the environmental impacts arising from the shortlisted options to ensure they are clearly identified and accounted for in the decision-making process. For the PBC, the environmental impacts of all shortlisted options need to be identified and described in detail for comparison with the base case. The lens through which this assessment is conducted is purely environmental. Although this is only conducted as a desktop assessment, the extent of the assessment should provide the decision maker with enough information and evidence to make an informed decision regarding the efficacy of the option/s selected as the preferred option/s.

Figure 13 illustrates the inputs required to develop the Environmental Assessment section and the outputs that result from it.



Figure 13: Inputs and Outputs to the Environmental Assessment Section



10.1. Approach

Environmental assessments should:

- identify and review information from relevant previous studies
- identify all potential environmental issues and impacts
- include a desktop assessment of how environmental issues and impacts may impact on the options.

10.2. Identification of Environmental Impacts

For each shortlisted option, identify and categorise the relevant environmental considerations and impacts. Table 7 outlines potential environmental considerations. At the PBC stage, the level of analysis aims to **identify** and broadly **consider** any critical issues which may impact on the viability of the option. Detailed consideration is undertaken during DBC development.

Environmental impacts should be reflected in the deliverability assessment, the sustainability considerations, the social impact evaluation, the risk assessment and the project cost estimates.

Note the impact of any considerations raised in Section 7.



Table 7: Identification of Environmental Impacts

ASPECT	CONSIDERATIONS
Legislation and Permit Requirements	<ul style="list-style-type: none"> Identify and consider the impact of any legislative obligations and approvals required (in addition to Section 7.2) Perform high-level cost and time calculations for each requirement.
Planning and Land Use	<ul style="list-style-type: none"> Review current land uses Consider potential changes to land use which may occur during construction and operational phases for implementation of the options (where appropriate) Describe the degree of alignment to relevant plans and how the project contributes to (or fails to contribute to) any environmental schemes.
Property Impacts	<ul style="list-style-type: none"> Identify and describe any impacts to public and private property (if not already noted in Section 7.4).
Topography, Geology, and Soils	<ul style="list-style-type: none"> Consider sediment and erosion control management Identify relevant matters in the Environmental Management Register and Contaminated Land Register.
Water Quality	<ul style="list-style-type: none"> Consider both surface water and ground water Provide information on any existing management strategies as well as proposed infrastructure Describe strategies to manage existing or potential water quality issues.
Hydrology	<ul style="list-style-type: none"> Undertake high-level hydrological and hydraulic investigation, analysis and assessment of any infrastructure options to assist in refining the design and provide input for the detailed planning and costing.
Flora and Fauna	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Potential impacts of climate and seasonal variations on design and project delivery Potential impacts and strategies for managing air quality issues during project delivery.
Climate Change and Emissions	<ul style="list-style-type: none"> Consider and describe how the project will mitigate climate change by contributing to a reduction in global carbon emissions.
Noise and Vibration	<ul style="list-style-type: none"> Potential impacts and strategies for managing noise and vibration issues during project delivery Potential impacts and strategies for managing noise and vibration issues (where appropriate) post project delivery.
Landscape and Visual Amenity	<ul style="list-style-type: none"> Describe any impact of the project on visual amenity Identify strategies to respond to issues relating to visual amenity and landscape impacts during and post delivery.
Cultural Heritage	<ul style="list-style-type: none"> A statement of places with known or potential historical significance Strategies for managing any potential impact on cultural heritage.
Waste Management	<ul style="list-style-type: none"> Consider waste management during project delivery and operation.



10.3. Environmental Assessment

Community expectations and/or government policy, regulation or legislation may require that some of the identified environmental impacts of a shortlisted project are avoided, mitigated or offset. The costs associated with any avoidance, mitigation or offsetting should be included in the economic and financial analysis.

Any remaining (or residual) environmental impacts must then be assessed. These residual environmental impacts can be divided into three assessment categories and managed differently:

- environmental impacts that can be quantified and monetised should be included in the CBA
- environmental impacts that can be quantified and not monetised should be included in the quantitative environmental assessment
- environmental impacts that cannot be quantified or monetised should be included in the qualitative environmental assessment.

Table 8 illustrates the relationship between environmental impacts and the approach taken.

Table 8: The Relationship Between Environmental Impacts and Approach

RELATIONSHIP BETWEEN ENVIRONMENTAL IMPACTS AND APPROACH			
	Quantified	Monetised	Approach
Environmental Impacts		✓	CBA
			Quantitative environmental assessment
			Qualitative environmental assessment

All identified environmental impacts that can be monetised should be included in the CBA (Section 11). The results of the environmental assessment for impacts that cannot be monetised should be reflected in the risk assessment and incorporated in the multi-criteria assessment in Section 16 to assist in selecting an option to be carried forward to the DBC.

Environmental impacts included in the CBA do not need to be reported in the Environmental Assessment. For environmental impacts included in the quantitative environmental assessment, a unit of measure needs to be proposed. Environmental impacts in the qualitative assessment should be described in detail.

Environmental impacts of each option may be summarised (Table 9).

Table 9: Environmental Impact Assessment Option Summary Template

ENVIRONMENTAL IMPACT ASSESSMENT—OPTION 1		
Impact Identified	Description of Impact	Evaluation Approach (CBA/Quantitative impacts/Qualitative impacts)
Impact 1		
Impact 2		
Etc.		



Make note of any impacts on benefits or emerging dis-benefits and document any adjustments necessary to the shortlisted options.

Update the Stakeholder Engagement Plan if necessary.

Update the Benefits Register and Risk Register if required.

11. ECONOMIC ANALYSIS

This section documents the economic analysis of the shortlisted options. Economic analysis should take into account the work completed within the social impact evaluation, financial and commercial impact section, and environmental impact section in terms of accounting for economic benefits and costs from the proposed investment options. The lens through which this section is developed is however, purely economic. Social-cost benefit analysis (CBA) is a highly effective way to compare potential options.

The goal of economic analysis conducted in a PBC stage is to provide a robust basis for options analysis and to justify the viability of the preferred option/s. Fundamental to any economic analysis is the comprehensive identification of all benefits and costs. Economic analysis will:

- be undertaken for all infrastructure projects with capital costs exceeding \$50 million
- characterise benefits and costs by their impacts on people, rather than on organisations or decision makers
- analyse benefits and costs that have observable and measurable consequences
- use a discount rate of 7 per cent with sensitivity testing conducted using 4 per cent and 10 per cent
- calculate key economic indicators for all shortlisted options, such as risk-adjusted Net Present Value (NPV) and Benefit Cost Ratio (BCR) at a P50 level
- report all key project risks identified from financial, commercial and economic analyses including all Monte Carlo NPV distribution profiles.

Reference should be made to the Building Queensland [Cost Benefit Analysis Guide](#) in developing the economic case as it includes further guidance on:

- the decision criteria for the shortlisted options which are considered the minimum requirements for all projects
- principles and procedures to be applied to the economic analysis of the shortlisted options.

Key requirements when completing an economic analysis in the PBC include:

- A fully developed, articulated and substantiated analysis of costs, benefits and forecast demand. The demand forecast should include adequate consideration and articulation of behavioural elasticities (e.g. demand and cross price elasticity) and anticipated future economic and social trends (e.g. demographic change).
- The project evaluation period must be aligned with the limits of well-developed demand modelling forecasts. The evaluation period for the economic analysis should not extend beyond the demand modelling forecast period, should not exceed 30 years and should be consistent with financial modelling.



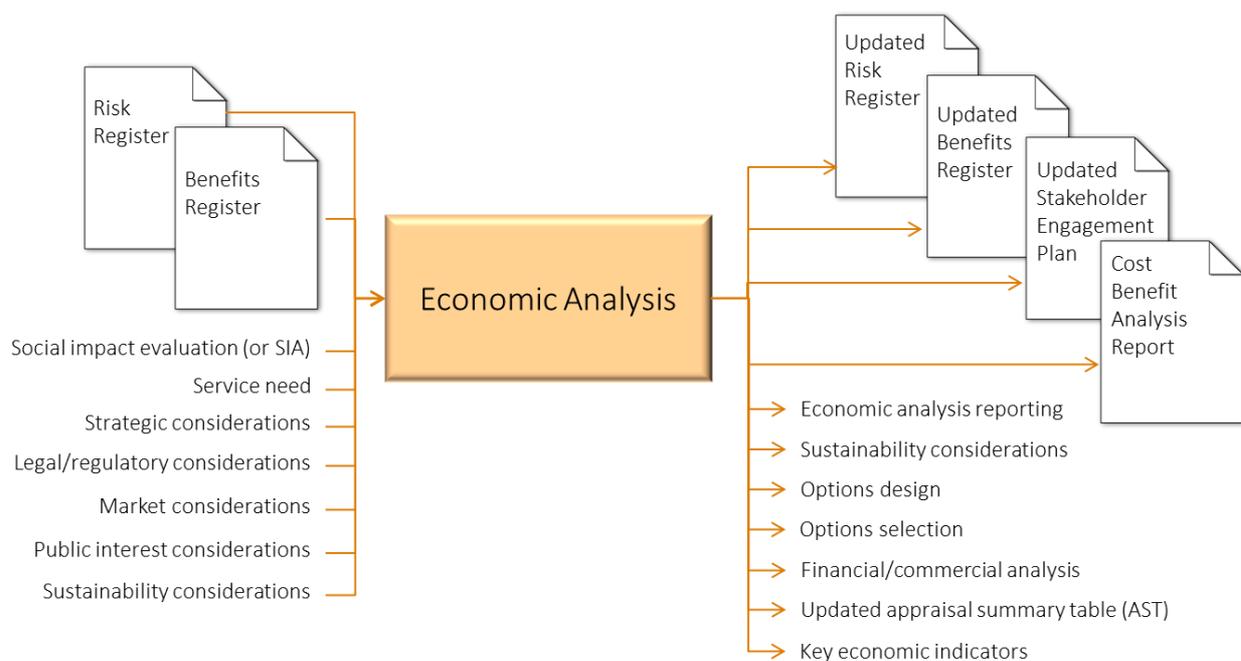
- The central case should be calculated using a discount rate of 7 per cent with sensitivity testing at 4 per cent and 10 per cent. All modelling in the calculation of key economic indicators should be internally consistent with other inputs e.g. demand modelling should inform any derivation and calculation of benefit streams.
- There must be full reporting and transparency in the reporting of data sourcing, referencing and any formulas used to complete the economic analysis and modelling.

The results of the economic analysis will enable the options to be ranked or rated according to their economic value compared to the base case.

Principles and procedures outlined in the Building Queensland [Cost Benefit Analysis Guide](#) should be applied to the economic analysis of the shortlisted options.

Figure 14 illustrates the inputs required to develop the Economic Analysis section and the outputs that result from it.

Figure 14: Inputs and Outputs to the Economic Analysis Section



11.1. Approach

There are various approaches to economic analysis, the suitability of which depends on the purpose of the assessment and the availability of data and other resources. Fundamental to economic analysis is that all benefits and costs are identified and documented as comprehensively as possible. These benefits and costs are characterised by impacts on people, rather than impacts on organisations or decision makers, and are characterised by observable consequences that are measurable.

Document the approach adopted for the economic analysis of the shortlisted options. This should be highly detailed, transparent and include reference to, and documentation of:

- assumptions underlying the analysis—e.g. base price year, discount rate, modelling and forecasting assumptions



- key inputs—e.g. costs, demand modelling to the analysis, and key analytical observations (e.g. elasticity of demand)
- detailed description of the base case and the analysed options.

Data limitations may prevent all project benefits and costs being incorporated into the calculation of a Benefit Cost Ratio (BCR). In such circumstances, benefits that cannot be monetised are considered separately in the SIE (Section 13). Project risk-adjusted Net Present Value (NPV) should be included in addition to the BCR.

A PBC CBA must report all risk adjusted benefits and costs at a P50 level. Where a higher level of risk is apparent, a higher level of certainty (for example, use of P90 cost estimates) may be incorporated into the preliminary economic evaluation. It is considered better practice to declare the extent of the reference design the estimate is based on.

Additional tools, such as cost-effectiveness analysis (CEA), may be used in the shortlisting of possible options;³ however, a key process within the CBA remains the assessment of project net social benefits. Additionally, another economic indicator to be used in choosing between options is the incremental benefit cost ratio (IBCR), which provides a powerful indication of the additional incremental benefit between options, or combinations of options.

11.1.1. Quality Assurance

An independent peer review of the economic assessment should be completed to assure the soundness and appropriateness of the methodology, technical procedures, modelling logic and processes associated with the results. The review report should include:

- A summary of the independent peer reviewer's findings, particularly in relation to adequacy of documentation, methodology, key risks and uncertainties, assumptions and results.
- A declaration of the peer reviewer's interest or conflict of interest.

Ongoing technical advice should be sought throughout the completion of the economic analysis to ensure a robust analysis.

11.2. Benefits

Identify positive and negative social impacts of the option/s. The purpose of estimating benefits is to consider whether the benefits are worth the costs. The general rule is that benefits should be valued unless it is clearly not practicable to do so.

Key benefit streams such as improved service/s, increased productivity, or reduced/avoided costs, should be presented separately in a table or graph. Benefits streams should include the headline figures, as well as valuation of all benefits categories.

Benefits that are not able to be valued must be included in the SIE (refer to Section 9).

11.3. Costs

Identify the economic costs of the option/s. For significant infrastructure projects, the relevant costs are likely to equate to the full economic cost of providing the associated goods and services over the lifecycle of the asset. For these proposals, the full economic cost should be calculated. This includes direct and indirect costs, and attributable overheads.

³ But only where filtering is used to assess options with the same or very similar (benefit) outcomes.



In most cases a number of adjustments will need to be made to project costs in order to convert outturn estimates to real economic costs for application in the economic analysis, including removal of financial accounting treatments such as inflationary escalation.

Key costs should be summarised in a table, and should be detailed into specific cost categories. Attaching a clear outline of these costs, on a year-by-year basis is useful for clarity.

11.4. Cost Benefit Analysis Results

Provide a summary of the value of incremental benefits and costs (NPV distribution profiles) and the resulting economic indicators, along with a discussion of the results for the analysed option/s. Table 10 shows results across different applied discount rates, disaggregated cost and benefit streams, and key economic indicators. Note, economic indicators should be developed to inform economic performance, should be articulated, and their implications reported.

Table 10: Cost Benefit Analysis Results Template

COST BENEFIT ANALYSIS RESULTS (P50)			
Item	4%	7%	10%
Project Benefits			
Total Benefits			
Project Costs			
Total Costs			
Net Present Value			
Benefit Cost Ratio			

11.5. Sensitivity Analysis

Economic analysis results are based on what has been established as the best estimate of benefits and costs. It is recognised that there will always be some level of uncertainty regarding the future. Sensitivity testing is a way to assess uncertainty around assumptions. In line with national guidance, the cost benefit analysis should be tested, at a minimum, for variations in:

- discount rate
- project costs (construction and operating costs)
- project benefits
- demand drivers.



A description of the sensitivity analysis and any scenario tests undertaken along with a summary of the results should be reported in terms of detailed benefit and costs streams at designated discount rates. The selected sensitivity testing should be informed by those project drivers that result in significant changes to economic analysis results. High levels of probabilistic modelling (in terms of expected project outcomes) is routine in a PBC, along with highly detailed reporting, with all modelling and analytical reporting attached, in full, as an appendix.

Detailed economic evaluation should generate results that are aligned to any required funding templates, including any additional detailed information. Along with the reporting requirements outlined in [Cost Benefit Analysis Guide](#), CBA results should also be presented using pie charts or graphs.

Update the Stakeholder Engagement Plan if necessary.

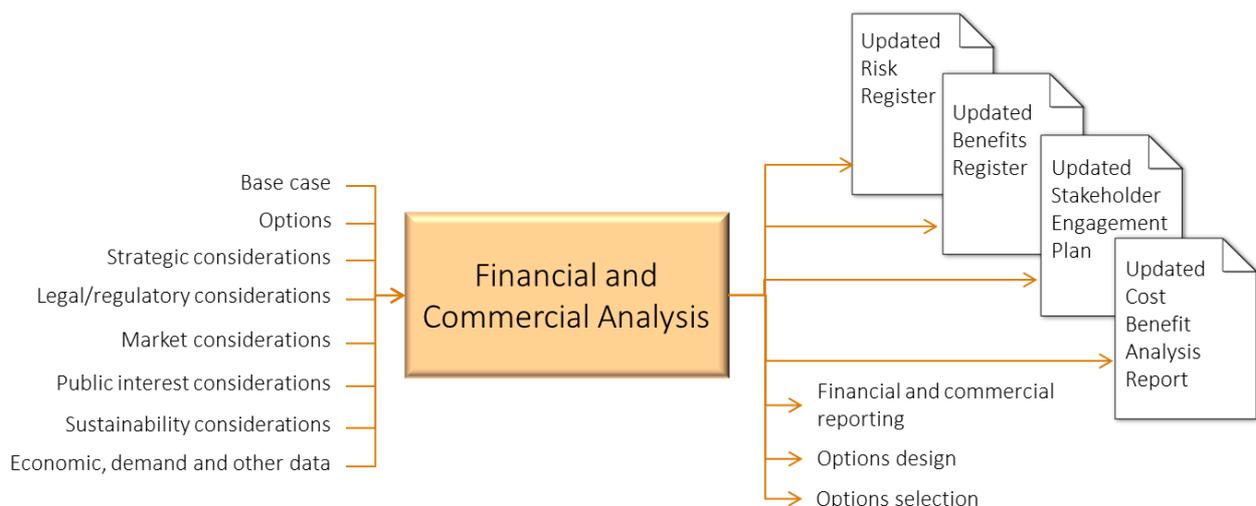
Update the Benefits Register and Risk Register if required.

12. FINANCIAL AND COMMERCIAL ANALYSIS

Document the financial implications and budgetary impacts of the options by reviewing the pattern of related cash flows for each shortlisted option. A financial analysis incorporating an analysis of cash flows and risks associated with those cash flows should be carried out for all options regardless of scale, as understanding and quantifying financial flows is critical to investment decision making.

An analysis of financial and commercial aspects of the options enables the options to be ranked or rated in terms of their financial and commercial impact. Figure 15 illustrates the inputs required to develop the Financial and Commercial Analysis section and the outputs that result from it.

Figure 15: Inputs and Outputs to the Financial and Commercial Analysis Section





Financial analysis has a different purpose to the economic analysis: financial analysis is focused on the financial costs (i.e. the net financial impact to government including cash-flow implications) from an internal financing perspective. While the economic analysis (Section 11) incorporates the outputs of the financial analysis, it also focuses on the overall economic welfare of the community.

A key input to the financial and economic analysis is a fully developed and articulated analysis of forecast demand. This demand forecast should include adequate consideration and articulation of behavioural elasticities (e.g. demand and cross-price elasticity) and anticipated future economic and social trends (e.g. demographic change). In addition, the project evaluation period needs to be aligned with the limits of well-developed demand-modelling forecasts. The evaluation period for the financial and economic analysis should not extend beyond the demand-modelling-forecast period and should not exceed 30 years. Contact Building Queensland for further guidance on the depth of analysis.

12.1. Approach

For each relevant shortlisted option:

1. identify all revenues and costs (both capital and operating costs)
2. generate a summary table of the revenues and costs in Present Value (PV) terms, together with any necessary commentary concerning specific associated issues. Calculate a Financial Net Present Value (FNPV) applying an appropriate risk-adjusted discount rate. In all cases, the discount rate used should be consistent with the type of cash flows it is applied to
3. give preliminary consideration to budgetary impacts, as well as potential government (local, state and federal) funding sources for the shortlisted options
4. risk-adjust all revenues and costs (at P50). Report Monte Carlo analysis summary results including key risk, modelling assumptions (including level of reference design) and FNPV distribution profiles.

The analysis and its outcomes should be documented and independently peer reviewed, including the methodology, assumptions and outputs.

Queensland Treasury should be contacted regarding the appropriate discount rate.

Note any impact of considerations raised in Section 7.

12.2. Financial Net Present Value

12.2.1. Approach

The unadjusted FNPV is the output of a financial model that projects the cash-flow profile (i.e. revenues and costs) generated from an option over its lifetime. The financial model must include all revenues generated by the project, capital costs, operating costs and residual values (in the last year of the project). By calculating the net cash-flow balances in each year and discounting these at an appropriate rate, an unadjusted FNPV is produced for each shortlisted option.

The unadjusted FNPV represents the net financial impact to government in present dollars from an internal financing perspective. The FNPV calculated here is an unadjusted FNPV as it does not take into account the risk profiles of the cash flows.



Outline the approach used to calculate an unadjusted FNPV including:

- assumptions and limitations
- key data sources and inputs
- methodology used in the analysis.

All financial, economic and demand modelling assumptions, outputs and fully functioning models should be reported and made available to technical and peer reviewers.

12.2.2. Capital Costs

Identify all capital costs for each relevant option. Capital costs can be broken down into specific stages for key milestones of the project, stages or packages if required, but should include all costs relating to the design, construction and implementation of the relevant shortlisted options. Costs should be based on the most accurate data available and be as realistic as possible.

Approvals for projects to proceed must be informed by the likely accounting treatment. Agency budget forecasts must similarly reflect expected accounting treatment.

Accounting advice should be sought as early as possible, to determine the likely accounting treatment of project costs under each option. For example, Australian Accounting Standards impose high level criteria as to which costs can be capitalised as assets rather than expensed. Queensland Treasury also provides relevant guidance through the Non-Current Asset Policies.

Where costs can be capitalised as assets, consider who will ultimately control the asset. In many circumstances, the asset (or a portion of it) may not be controlled by the project owner and will have to be expensed.

All capital costs should be documented, including a summary Present Value (PV) for each shortlisted option (refer to Table 11).

Table 11: Capital Costs Summary Template

CAPITAL COST TABLE—OPTIONS			
Initial Capital Costs	Option 1 PV (\$ million)	Option 2 PV (\$ million)	Option 3 PV (\$ million)
Design			
Build			
Implement			
TOTAL			
Costs included above not eligible for capitalisation by Queensland Government			

12.2.3. Initial One-Off Operating Costs

Identify any one-off costs relating to start-up of the service for each shortlisted option. Examples include: training costs, change-management costs, relocation costs etc. All one-off operating costs should be summarised for each shortlisted option (Table 12).



Table 12: One-Off Operating Costs Summary Template

ONE-OFF OPERATING COSTS TABLE—OPTIONS			
Initial One-off Operating Costs	Option 1 PV (\$ million)	Option 2 PV (\$ million)	Option 3 PV (\$ million)
Training			
Change Management			
Relocation			
TOTAL			

12.2.4. Ongoing Costs (Whole-of-Life)

Identify the whole-of-life costs for each shortlisted option. These costs determine the total cost over the life of the capital asset which underpin capital asset proposals. All ongoing costs should be summarised for each shortlisted option (Table 13).

Table 13: Ongoing Costs Summary Template

ONGOING (WHOLE-OF-LIFE) COSTS TABLE—OPTIONS			
Ongoing Whole-of-Life Costs	Option 1 PV (\$ million)	Option 2 PV (\$ million)	Option 3 PV (\$ million)
Operations			
Maintenance			
TOTAL			

12.2.5. Residual Values

Identify the residual values of the infrastructure (and any other assets) for the shortlisted options in PV terms at the conclusion of the period of analysis. Summarise all residual value for each option (Table 14). Outline the depreciation method adopted in calculating residual values.

Table 14: Residual Values Summary Template

RESIDUAL VALUES—OPTIONS			
Residual Value	Option 1 PV (\$ million)	Option 2 PV (\$ million)	Option 3 PV (\$ million)
Infrastructure			
Other Assets			
TOTAL			

12.2.6. Revenues

The financial analysis should include estimates of any potential cash inflows to government from the option. These inflows include third-party funding sources such as revenues from user charges (e.g. public transport fares or tolls) or revenues from value-capture mechanisms.

A value capture (refer to Section 12.2.7) and user-charging assessment must be undertaken. Queensland Treasury, Building Queensland, and the Department of Infrastructure, Local Government and Planning must be consulted before undertaking the assessment.



If shortlisted options are intended to generate cash inflows, the basis of derivation (e.g. benchmarks) and major underlying assumptions should be clearly documented (Table 15).

Table 15: Revenues Table for Options Template

REVENUES—OPTIONS			
Revenues	Option 1 PV (\$ million)	Option 2 PV (\$ million)	Option 3 PV (\$ million)
Operating Revenue			
Other Revenues			
TOTAL			

12.2.7. Value Capture

The opportunity for value capture to assist in funding projects must be explored in any Building Queensland PBC. Value capture involves extracting funding contributions from those that derive a benefit (other than users) from infrastructure. Most commonly, value-capture mechanisms are targeted at capturing a portion of the uplift in land values attributable to infrastructure investment.

Appropriately designed value-capture mechanisms can assist in funding infrastructure projects and, in some circumstances, have efficiency and equity advantages relative to government contributions.⁴ A value-capture assessment undertaken as part of a Business Case must follow the following four step process:

1. identify beneficiaries and benefits
2. estimate value uplift
3. identify relevant value-capture mechanisms
4. evaluate mechanisms.

Where value uplift is identified, the evaluation of mechanisms that could be employed to capture that uplift must be guided by the following well-established principles: efficiency (economic and taxation efficiency), equity, fairness (horizontal equity), materiality and sustainability (stability and reliability). In addition, stakeholder consultation and support is critical to the successful implementation of value-capture mechanisms.

Contact Building Queensland for further guidance and materials to assist in undertaking a value-capture assessment of infrastructure proposals.

12.3. Risk-Adjusted Financial Net Present Value

Summarise the whole-of-life capital and operating costs and revenue in risk-adjusted NPV terms for each shortlisted option. This should be informed by an impact risk assessment and probabilistic modelling using Monte Carlo simulation. In assessing likelihood, a probability distribution for each key assumption needs to be defined for Monte Carlo analysis. Monte Carlo is the preferred approach to estimating the value of key project drivers as it allows the user to effectively account for a range of risks. The Monte Carlo analysis could also be used to help refine and identify project risks.

⁴ See for example the Productivity Commission 2014 Inquiry into Public Infrastructure.



12.3.1. Quantitative Risk Assessment

Quantification of risk involves assessing the likelihood of the risk occurring and the associated financial consequences. Likelihood and consequence of risk will vary due to the delivery models considered (Section 13). Quantification comprises the product of:

- the likelihood (probability) of costs, revenues and benefits being different from the expected values
- the consequences of the difference (i.e. the difference between the actual and expected values).

12.3.2. Qualitative Risk Assessment

Qualitative risk assessment involves determining, for each identified risk:

- the triggers of risk, their impacts and the likelihood of those impacts occurring
- the consequences of the risk and any risk mitigation with revenue or cost consequences.

12.3.3. Risk-Adjusted NPV

The combination of the likelihood of risks occurring and their consequences determines the materiality of the risk, and hence the level of risk-analysis undertaken, including the need for mitigating strategies.

The outputs of risk assessments will allow for a probabilistic, Monte Carlo simulation to be used to provide the probability of various estimates of revenue and costs to a P50 level of confidence.

Provide a summary table of the risk-adjusted whole-of-life capital and operating costs and revenue in PV terms, together with any necessary commentary concerning specific associated issues. Ensure revenue or cost items that have changed as a result of the risk assessment are clearly identified. Report:

- risk-adjusted cash-flow impacts for each year over the project horizon
- a summary table of the risk-adjusted whole-of-life capital and operating costs and revenue in out-turn dollars
- risk-adjust all revenues and costs (at P50). Report Monte Carlo analysis summary results including key risk and sensitivity analysis, modelling assumptions (including level of reference design) and FNPV distribution profiles.

Out-turn dollars are the estimated dollar value for which the project will be completed assuming a given delivery period. Out-turn dollars are calculated by escalating the estimated project cash flow for each year of the project to represent the actual project cost in future-year dollars.

A P50 value is an estimate of the project revenue (or cost) based on a 50 per cent probability that the value will not be exceeded. P50 should be regarded as the minimum level of certainty achieved in the PBC.

Not all risks identified during a risk assessment will impact upon project revenues or costs. Some risks may, however, have implications for wider social, environmental or economic impacts and must be considered in Sections 9, 10 and 11.

Note any impacts on benefits or emerging dis-benefits and document any adjustments necessary to the shortlisted options.

Update the Stakeholder Engagement Plan if necessary.

Update the Benefits Register and Risk Register if required.



12.4. Risk Allocation

Consider whether the public or private sector is responsible for risk, and who is best able to manage it. Traditional or PPP delivery should also be considered during both the qualitative and quantitative risk workshops. This is an important step in the risk analysis as it determines how the quantified risk values are applied to develop the risk-adjusted project cost.

Where a PPP is proposed and a value for money assessment is to be undertaken, the risk-allocation analysis is used to determine which risks will be retained by the state or transferred to the private sector under a PPP arrangement. A percentage allocation is assigned to the public and private sector for each risk and is included in the Risk Register. This allocation is revisited and refined through the risk analysis process.

An assessment of whether the public or private sector is best placed to manage these risks is also required by the National PPP Policy and supporting PAF guidelines. Allocation of risk should be summarised in a table that clearly identifies the risks retained by government or transferred to the private sector (Table 16).

Table 16: Template Risk Allocation Summary

RISK ALLOCATION		
Item	Total Risk (nominal \$ million)	Total Risk as % of Raw Capex (%)
P50 Construction Risk		
Retained		
Transferred		
TOTAL		
P50 Operation Risk		
Retained		
Transferred		
TOTAL		

Benchmarking of the risk allocation should be undertaken against other precedent and similar projects (if available) to determine whether the proposed risk allocation is broadly consistent. Benchmarking assists in providing further confidence to decision makers that costs are realistic and not overly impacted by bias.

12.5. Analysis Summary

Provide a summary of the whole-of-life risk-adjusted NPV for each shortlisted option. Include any necessary commentary concerning specific associated issues. Report:

- Cash-flow impacts for each year over the project horizon
- risk-adjusted FNPV outputs and summary results of key project assumptions and risks including Monte Carlo analysis and key risk profiles
- an assessment of the financial sustainability (i.e. whether an option's revenues can cover its costs) and an assessment of funding sources for the project
- a summary table of the whole-of-life capital and operating costs and revenue in out-turn dollars.

Queensland Treasury should be consulted for assistance relating to the potential for private sector funding and/or financing.



CONTROL POINT 3

Before progressing with the PBC, complete the following checklist. If an item has not been completed, include an explanation in the Methodology (Section 3).

CONTROL POINT 3				
#	Have the following tasks been completed?	Section	Yes	No
1	All potential social impacts for each option (relative to the base case options) identified, categorised and described	9 & SIE Guide		
2	Ability to quantify and/or monetise social impacts determined	9 & SIE Guide		
3	Environmental assessment completed	10		
4	Assessment of any risks that may impact on the project completed	10, 13 & SIE Guide		
5	Cost benefit analysis (CBA) to a P50 level of confidence completed	11 & CBA Guide		
6	All project-generated revenues and costs identified	12		
7	Financial model created that projects the cash-flow profile generated from a project over its lifetime	12		
8	Value-capture and user-charging assessment completed	12.2		
9	Budgetary impacts and potential funding sources considered	13.5		
10	Consequences of identified risks determined for the financial cash flow estimates and/or wider project benefit and cost estimates associated with the project	12 & 13		
11	Whether the public or private sector is responsible for and best able to manage each identified risk considered	13.4		
12	Monte Carlo simulation (e.g. @Risk) on the financial cash flow to a P50 level of confidence performed	13		
13	Risk Register updated to include risk assessments from Sections 9 to 13	vi		
14	Independent peer review completed—of the methodology, assumptions and outputs of the assessments (particularly economic and financial/commercial assessments)			
#	Critical decision points	Section	Yes	No
1	Have any social, environmental, economic, financial or commercial considerations been identified which could result in the shortlisted options not proceeding?	9 to 12		
2	Are any of the assessments impacted by optimism bias?	9 to 12		
3	Is the proposal subject to momentum bias?			

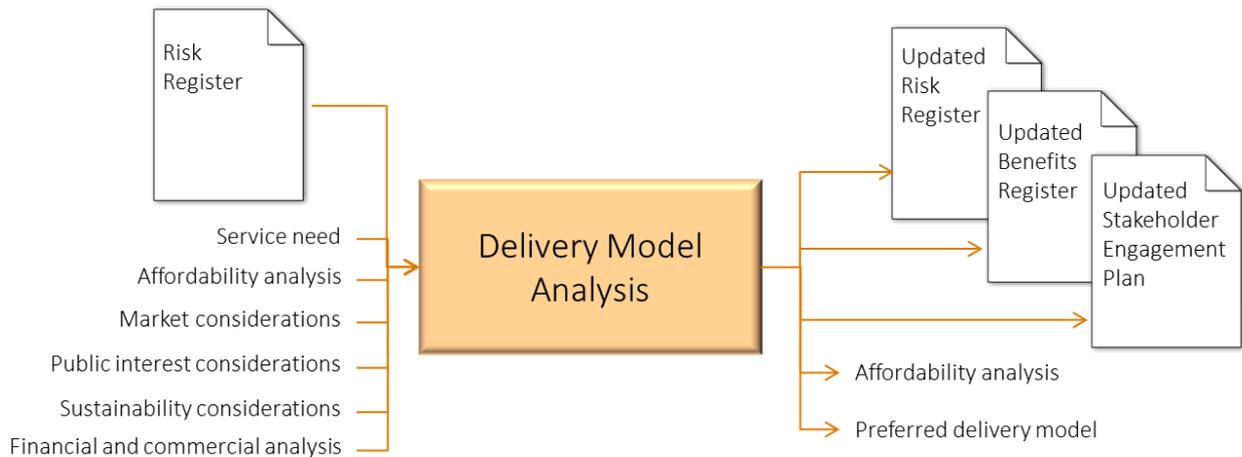


13. DELIVERY MODEL ANALYSIS

Document the range of possible delivery models by which shortlisted options could be procured and delivered. The objective of the assessment is to identify a delivery model that is likely to provide the best value for money (VfM) in meeting the identified service need.

Figure 16 illustrates the inputs required to develop the Delivery Model Analysis section and the outputs that result from it.

Figure 16: Inputs and Outputs to the Delivery Model Analysis Section



13.1. Approach

Describe the methodology adopted for the delivery model assessment of shortlisted options. This should include documentation of:

- assumptions underlying the analysis
- project characteristics (e.g. objectives, scope, timelines, stakeholders, market capability and capacity)
- project 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 delivery of similar projects in Queensland and other jurisdictions
- staging and packaging of opportunities and scenarios
- project 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.

13.2. Traditional Delivery Model Assessment

Describe the delivery models considered for each option, the component/s of each option (if applicable) and key considerations (precedent projects, risk allocation). Assess these against the evaluation criteria. Workshops may be required to facilitate discussion and robust assessment. Outline which delivery models were assessed; these may include:

- design and construct (D and C)
- design then construct (D then C)



- design, construct and maintain (D, C and M)
- design, construct, maintain and operate (D, C, M and O)
- alliance
- competitive alliance
- early contractor involvement (ECI)
- early tenderer involvement (ETI)
- managing contractor.

Note any justification for government involvement. A summary of a traditional delivery model assessment is provided in Table 17.

Table 17: Example Traditional Delivery Model Assessment

TRADITIONAL DELIVERY MODEL ASSESSMENT		
Option	Component	Preferred Traditional Delivery Model
Option 1	Component 1	
	Component 2	
Option 2	Component 1	
	Component 2	
	Component 3	
Option 3	Component 2	
	Component 3	

Example only

13.3. PPP Delivery Model Assessment

Undertake an assessment of the potential for the Queensland Government to achieve VfM by delivering a project under a PPP arrangement with private finance rather than traditional delivery. For the PBC, the VfM assessment is completed on a qualitative basis only. The assessment is limited to whether a PPP arrangement provides the potential to deliver VfM (as opposed to an assessment of the relative merits of the range of PPP models available). VfM drivers may include, but are not limited to:

- project scale
- risk allocation
- whole-of-life costing
- innovation
- improved asset utilisation
- economies of scale
- competitive process.

Generate a summary of the assessment (Table 18).



Table 18: Example Value for Money Assessment Summary

VFM ASSESSMENT SUMMARY		
Driver	Score	Description
Project Scale		
Risk Allocation		
Whole-of-Life Costing		
Innovation		
Improved Asset Utilisation		
Economies of Scale		
Competitive Process		
Overall Assessment: There is a <i>[low/moderate/high]</i> possibility of a PPP providing value for money		

Further guidance on undertaking a qualitative VfM assessment can be found in the PAF and the National PPP Guidelines. Workshops may be required to facilitate discussion and robust assessment. The results of the VfM assessment should be included in the multi-criteria assessment in Section 16.

If a shortlisted option is recommended to proceed to a DBC, a recommendation must be made on whether the option should proceed as a potential PPP. Any option assessed as having a moderate or high potential for VfM from PPP delivery should receive a recommendation to proceed as a PPP project.

At the end of the PBC stage, if an option is deemed to be affordable, a priority, and potentially appropriate for delivery as a PPP, DBC development would proceed following the National PPP Guidelines in conjunction with the Queensland PPP supporting guidelines. The Building Queensland DBC template and guidance may still provide a useful basis for this Business Case. The methodology for detailed analysis should be undertaken with reference to the National PPP Guidelines, in accordance with the PAF. Consult with Queensland Treasury regarding options for private sector investment.

If the project is recommended to proceed but not deemed potentially appropriate for PPP delivery, it should progress the DBC stage under a traditional delivery mechanism.

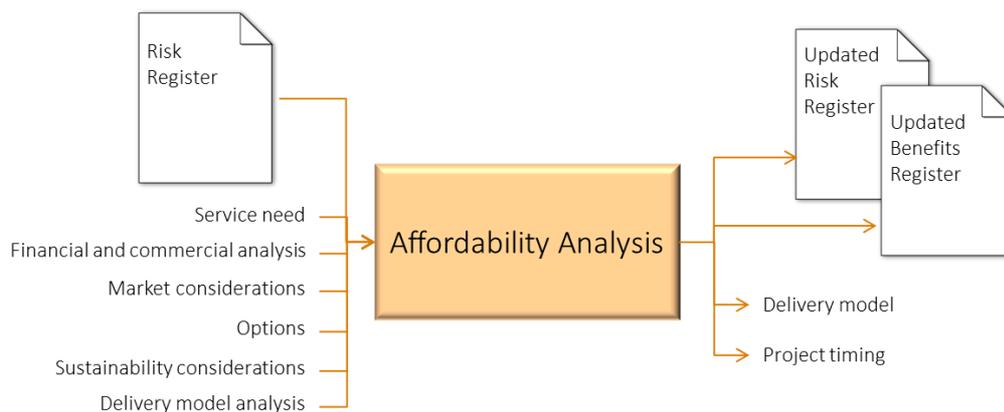


14. AFFORDABILITY ANALYSIS

This section brings together the range of discussions in preceding chapters of the PBC to outline affordability considerations for each shortlisted option. The purpose is to present all relevant information to allow decision makers to assess whether each option is affordable over the whole of its life by taking into account all sources of existing revenue, as well as additional income from other sources.

Figure 19 illustrates the inputs required to develop the Affordability Analysis section and the outputs that result from it.

Figure 19: Inputs and Outputs to the Affordability Analysis Section



14.1. Approach

Project affordability is measured by the expected risk-adjusted finance net cost (direct and indirect) to the State of delivering the options through traditional delivery. Describe the methodology for the affordability assessment.

14.2. Affordability Assessment

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

This could include an assessment of staging options, revenue sources (if applicable), preferred delivery options, funding availability (in terms of both capital and operating costs) and conditions and timing—acknowledging that the delivery options under consideration will have implications for funding profiles.

Make note of any issues from the delivery-model and affordability analyses and document any adjustments necessary to the shortlisted options.

Update the Stakeholder Engagement Plan if necessary.

Update the Benefits Register and Risk Register if required.



CONTROL POINT 4

Before progressing the PBC complete the following checklist. If an item has not been completed, include an explanation in the Methodology (Section 3).

CONTROL POINT 4				
#	Have the following tasks been completed for each option?	Section	Yes	No
1	Qualitative assessment of a range of potential delivery models (traditional and PPP) complete, to determine which delivery model is likely to deliver the best value for money	14		
2	Methodology adopted for the delivery model assessment documented	14.1		
3	Summary of the outcomes of a VfM PPP Assessment documented	14.2		
4	Summary of the outcomes of a traditional delivery model assessment documented	14.3		
5	Affordability of each option considered (taking into account all the previous analysis performed in the PBC)	15		
6	Methodology adopted for the affordability assessment documented	15.1		
7	Outcomes of an affordability assessment summarised (including documentation of the relative affordability of each option).	15.2		
8	Risk Register updated to include risk assessments for Sections 14 and 15	vi		
#	Critical decision points	Section	Yes	No
1	Have any issues been identified which could result in the shortlisted options not proceeding?			
2	Are any of the assessments impacted by optimism bias?			
3	Is the proposal subject to momentum bias?			

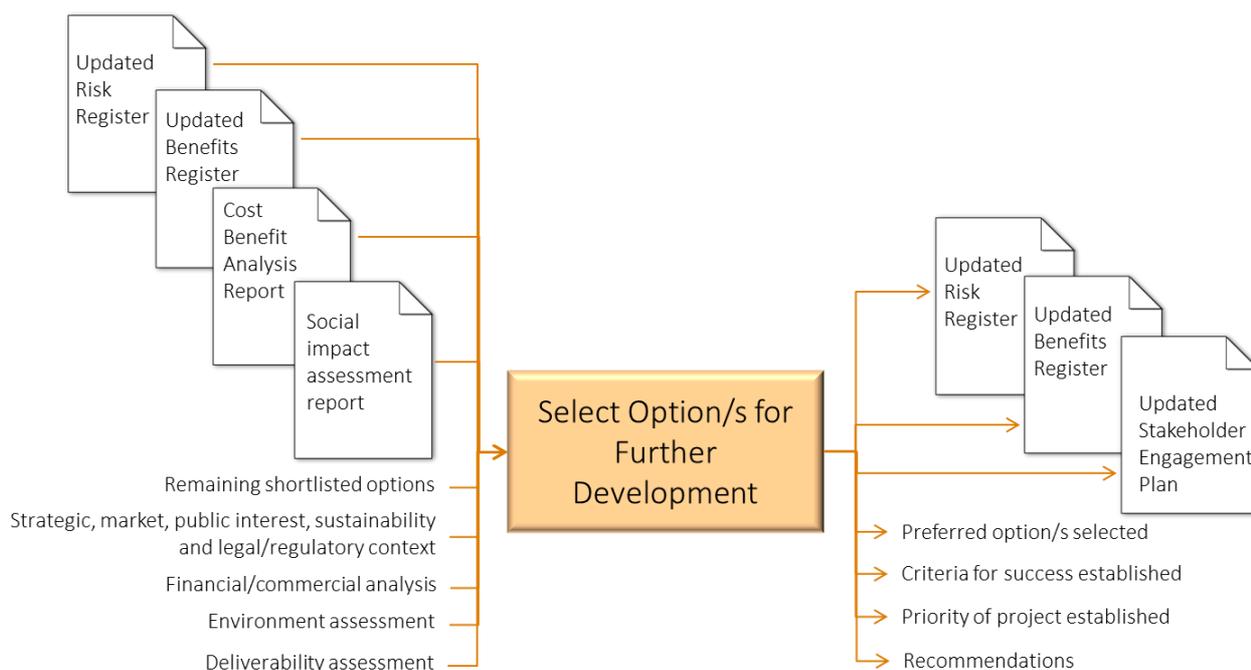


15. SELECT OPTION/S FOR FURTHER DEVELOPMENT

The purpose of this section is to assess of the shortlisted options to identify a preferred option for further development in the DBC. This represents the culmination of all assessments and reviews considered to develop the PBC.

Figure 20 illustrates the inputs required to develop the Select Option/s for Further Development section and the outputs that result from it.

Figure 20: Inputs and Outputs to the Select Option/s for Further Development Section



15.1. Approach

Where options have been modified as a result of the assessments completed in PBC development, review the options to ensure the benefits attributed to each option continue to be valid. Complete this review before selecting the preferred option/s for consideration in the DBC.

Describe the assessment methodology adopted for option/s selection. As the relative weightings assigned to the criteria in the multi-criteria analysis will vary according to the type of project and issues to be addressed, this section must also document the weightings give to the criteria and why.

Where there is insufficient information or detail to provide confidence in selecting a single option, a number of options may be progressed to the decision maker to enable that detail to be identified in a DBC.

15.2. Selection of Preferred Option/s

The multi-criteria assessment used to select the preferred option (Table 19) is informed by criteria generated by the Building Queensland [Prioritisation Framework](#) for the purposes of prioritising projects across government.

The criteria across four areas are weighted equally in this process: (1) strategic, (2) economic and financial, (3) social and environmental, and (4) deliverability. Where criteria cannot be quantified, a qualitative scope of each option's level of contribution towards each criterion will be applied. Rules are developed to convert quantitative and qualitative data into a score in the multi-criteria assessment.



Table 19: Example Multi-Criteria Analysis Summary

OPTION ASSESSMENT	OPTION 1	OPTION 2	OPTION 3
Strategic Appraisal			
Alignment to objectives (state, community, agency, project including the State Infrastructure Plan.	Low	Medium	Medium
Effectiveness in addressing the service need and achieving the benefits sought	Low	Low	Medium
Sustainability review outcomes	Low	Low	Low
Option aligns with SIP priorities (Reform, Better use, Improve Existing, New)	Medium	Low	High
Economic and Financial Appraisal			
Benefit Cost Ratio (BCR)	n/a	1.1	1.2
Net Present Value (NPV)	n/a		
Social and Environmental Appraisal			
Social Impacts	Negative (Medium)	Negative (Medium)	Positive (Low)
Environmental Impacts	Negative (Low)	Negative (Low)	Negative (Low)
Deliverability Appraisal			
Risk	Medium	High	Medium
Financial NPV (FNPV)–P50	n/a	\$70m	\$120m
Potential for VfM from PPP delivery	n/a	n/a	Low
Ranking	4	3	1

Example only

15.3. Impacts of Preferred Option/s

For the preferred option/s document the following six impacts:

15.3.1. Strategic Impact

Describe the strategic impact of the preferred option/s.

15.3.2. Economic Impact

Describe the economic impact (quantitative and qualitative) of the preferred option/s.

15.3.3. Social and Environmental Impact

Describe the social and environmental impact of the preferred option/s.

15.3.4. Financial and Commercial Impact

Describe the financial and funding impact of the preferred option/s.

15.3.5. Procurement Approach

Describe the proposed procurement approach and delivery model of the preferred option/s.

15.3.6. Timeframe

Describe the timeframe required to realise the proposed option/s address the service need.



15.4. Criteria for Success

Include an outline of what is required to successfully achieve the outcome sought. Criteria should be measurable and realistic. Criteria for success will vary according to the outcome sought, but may include:

- performance levels and availability
- development and running costs
- major functions and operation
- accuracy, reliability and ease of use
- appearance and amenity
- security and safety.

15.5. Priority

Document the priority of the project, including consideration of project staging and a description of the key impacts if the project does not proceed.

16. CONCLUSIONS

This section summarises the service need or problem, outcome and benefits sought, options analysis, and preferred option/s.

Discuss how the preferred option/s is likely to deliver value for money and be affordable over the life of the option, taking into consideration the estimates of the preferred option's costs and benefits, depth of technical investigations, sensitivity analysis, market sounding and preliminary procurement strategy.

Where the options have been modified during PBC development, review the options to ensure the benefits initially attributed to the investment continue to be able to be achieved by the preferred option/s. This may impact the cost-benefit analysis or social-impact evaluation.

17. ASSURANCE

Prior to finalising the PBC, a Gate 1 Assurance Review should be completed (when considered appropriate). The results of the Gateway Review should be incorporated into the document and noted in this section.

The finalised Business Case should be reviewed to provide assurance that the PBC:

- is **complete**—i.e. includes all necessary information for the investment decision
- includes **reliable and reasonable** information—i.e. the quality of the information is appropriate and can be relied upon, assumptions and the methodology for assessments are documented, assessments were completed with appropriate expertise and rigour
- is **comparable**—i.e. the Business Case utilises assessment methods and data which enable the Business Case to be compared to other Business Cases
- establishes a **transparent** case for the investment—i.e. information has been prepared without bias and with all risks, implications and mitigations clearly documented
- clearly identifies **ownership**—i.e. the Business Case clearly articulates the single point of accountability for the development of the Business Case, engagement of stakeholders, and the delivery of the anticipated benefits.



The Business Case and, in particular, the economic and financial and commercial assessments should be independently peer reviewed and assured.

18. IMPLEMENTATION PLAN

18.1. Detailed Business Case Plan

If the PBC is recommending that a preferred option/s progresses to a DBC, a detailed project plan and resource plan to develop the DBC is required. The plan should examine the requirements to implement the project including:

- governance
- clarity regarding scope
- resource requirements
- key project milestones, including date and responsible person
- cost estimate.

This material is to be detailed and should explain how implementation will be managed and delivered.

18.2. Communication Plan

Where appropriate, a communication strategy/plan should be developed to support the Stakeholder Engagement Plan.

19. RECOMMENDATIONS

This section recommends:

- whether the preferred option/s should progress to DBC or conclude at this point
- whether the preferred option/s should proceed as a potential PPP
- a preferred traditional delivery model for the preferred option/s (this recommendation should be made regardless of whether the preferred option has been identified as a potential PPP)
- timing of any potential solution including any urgency or recommendations for delay or staging.

If the recommendation is to proceed, this section should also:

- seek approval for the DBC plan
- highlight significant issues or risks for decision makers, if appropriate.

Where the outcome of the PBC concludes that a non-infrastructure preferred option/s is to be progressed, this section should include recommendations regarding the oversight and ownership of the proposal moving forward.

20. REFERENCES

The finalised PBC should include a list of all references and sources of evidence to support the Business Case and the assessments completed.



CONTROL POINT 5

To conclude the DBC complete the following checklist. If an item has not been completed an explanation should be included in the Methodology (Section 3).

CONTROL POINT 5				
#	Have the following tasks been completed?	Section	Yes	No
1	All sources used, assumptions made and methodology adopted for selecting a preferred option documented	16		
2	Options assessed and a preferred option identified	16.2		
3	Multi-criteria options assessment summarised	16.2		
4	Descriptions of: <ul style="list-style-type: none"> ▪ 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 	16.3		
5	What is required for the preferred option to successfully achieve the outcome sought considered	16.4		
6	The priority of the preferred option and the implications associated with not proceeding considered	16.5		
7	A concluding statement included	17.1		
8	Gate 1 Assurance Review completed (if required)	17.2		
9	Detailed project and resource plan for the detailed Business Case prepared (if required)	17.3		
10	Recommendations documented	17.4		
11	Executive Summary prepared	1		
12	Risk Register updated to include risk assessments from Sections 16 and 17	viii		
13	Review the finalised PBC to assess whether: <ul style="list-style-type: none"> ▪ it is complete ▪ the information is reliable and reasonable ▪ it is transparent ▪ it clearly documents ownership ▪ assessments and documentation enable the Business Case to be compared to others 	17.2		
#	Critical decision points	Section	Yes	No
1	Has the refinement of options during PBC assessments resulted in any of the benefits to be achieved no longer being valid?			
2	Is the proposal still valid in light of any changes to the general environment, underpinning demand data or the implementation of other programs/initiatives since the PBC was finalised?			
3	Is the proposal subject to momentum bias?			
4	Does the preferred option/s demonstrate net economic benefit?			



APPENDIX 1: PRELIMINARY BUSINESS CASE SECTIONS

1. EXECUTIVE SUMMARY
2. GOVERNANCE
 - 2.1 Proposal Owner
 - 2.2 Steering Committee
 - 2.3 Building Queensland
3. METHODOLOGY
 - 3.1 Risk Approach
 - 3.2 Stakeholder Engagement Approach
 - 3.3 Options Assessment Approach
4. PROPOSAL BACKGROUND
 - 4.1 Review the Strategic Business Case
5. SERVICE NEED
 - 5.1 Current State
 - 5.2 Stakeholders
 - 5.3 Benefits Sought
 - 5.4 Potential Initiatives
 - 5.5 Base Case
6. OPTIONS GENERATION
 - 6.1 Approach
 - 6.2 Options Long List
7. HIGH LEVEL CONSIDERATIONS/OPTIONS FILTER
 - 7.1 Strategic Considerations
 - 7.2 Legal and Regulatory Considerations
 - 7.3 Market Considerations
 - 7.4 Public Interest Considerations
 - 7.5 Sustainability Considerations
 - 7.6 Final Filter
 - 7.7 Options Filter Summary
8. OPTIONS SHORT LIST



- 9. SOCIAL IMPACT EVALUATION
 - 9.1 Approach
 - 9.2 Identify Social Impacts
 - 9.3 Evaluation
 - 9.4 Impact Risk Assessment
 - 9.5 Appraisal Summary Table

- 10. ENVIRONMENTAL ASSESSMENT
 - 10.1 Approach
 - 10.2 Identification of Environmental Impacts
 - 10.3 Environmental Assessment

- 11. ECONOMIC ANALYSIS
 - 11.1 Methodology
 - 11.2 Benefits
 - 11.3 Costs
 - 11.4 Sensitivity Analysis
 - 11.5 Reporting

- 12. FINANCIAL AND COMMERCIAL ANALYSIS
 - 12.1 Approach
 - 12.2 Financial Net Present Value
 - 12.3 Risk-Adjusted Financial Net Present Value
 - 12.4 Analysis Summary

- 13. DELIVERY MODEL ANALYSIS
 - 13.1 Approach
 - 13.2 PPP Delivery Model Assessment
 - 13.3 Traditional Delivery Model Assessment

- 14. AFFORDABILITY ANALYSIS
 - 14.1 Approach
 - 14.2 Affordability Assessment

- 15. SELECT OPTION/S FOR FURTHER DEVELOPMENT
 - 15.1 Approach



- 15.2 Selection of Preferred Option/s
- 15.3 Impact of Preferred Option/s
- 15.4 Criteria for Success
- 15.5 Priority

16. CONCLUSIONS

17. ASSURANCE

18. IMPLEMENTATION PLAN

- 18.1 Detailed Business Case Plan
- 18.2 Communication Plan

19. RECOMMENDATIONS

20. REFERENCES

APPENDIX 1: BENEFITS REGISTER

APPENDIX 2: RISK REGISTER

APPENDIX 3: STAKEHOLDER ENGAGEMENT PLAN

APPENDIX 4: DETAILED BUSINESS CASE PLAN



APPENDIX 2: BENEFITS REGISTER

Benefits identified during PBC development should be captured in a Benefits Register. Initially, the Benefits Register might only involve completed columns for:

- benefit description
- statement of problem/opportunity or proposed initiative the benefits relate to
- related stakeholder/s
- potential beneficiary
- possible measures
- relative importance.

At PBC stage, the Benefits Register is used to ensure that options address the benefits sought and enable stakeholders' needs to be incorporated in options design. The Benefits Register in the PBC will include information gathered (and retained) during SBC development, as well as the suggested category of the benefit, dependences, risks and other considerations relevant to the matter of that benefit. Further information on refining benefits can be found in the Building Queensland [Benefits Management Framework](#) and the [Social Impact Evaluation Guide](#).

Example Benefit Register

INITIAL BENEFIT REGISTER					
Benefit Description	Related to: (state problem/opportunity statement or potential initiative)	Related Stakeholder/s	Potential Beneficiary	Possible measures	Relative importance
Example only					



APPENDIX 3: RISK REGISTER

While developing a PBC, risks should be captured in a Risk Register. Initially the Risk Register might only involve completed columns for:

- risk description
- trigger
- impact.

At PBC stage, 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 PBC.

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 that construction is delayed	caused by extended periods of rain	resulting in an extended construction period which may impact on ...	Likely	Major	High	Ensure that the project schedule includes sufficient float to account for potential weather delay
Demand	There is a risk that 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
Etc.							



APPENDIX 4: INITIAL STAKEHOLDER ENGAGEMENT PLAN

A Stakeholder Engagement Plan (SEP) includes the stakeholders relevant to the service need who must be considered during PBC development. The SEP documents the methods and frequency with which stakeholders will be engaged. The SEP is a living document and will be adjusted throughout PBC development. Prior approval is required for stakeholder engagement activities before any activities are implemented.

Stakeholder engagement is highly recommended, however, when agencies choose not to engage with stakeholders during PBC development, a draft SEP can be used to document stakeholder interests in the initiative.

At PBC stage, the SEP 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.

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
Example only					

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