BUILDING QUEENSLAND

BUSINESS CASE DEVELOPMENT FRAMEWORK

DETAILED 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
Strategic Business Case
Preliminary Business Case
Detailed Business Case

SUPPLEMENTARY GUIDANCE MATERIAL
ILM Workshop Guide
Social Impact Evaluation Guide
Cost Benefit Analysis Guide

RELATED DOCUMENTATION
Project Internal Assurance Framework
Engaging with Building Queensland Guides

Building Queensland acknowledges the following work which has informed this guide:

- Project Assessment Framework, Queensland Treasury
- Investment Management and Better Business Case Guidance, The Treasury, New Zealand
- Assessment Framework, Infrastructure Australia.

Building Queensland thanks members of the Building Queensland Reference Groups for their assistance and support in developing the Business Case Development Framework documents.

V2.1 December 2016

CONTENTS

AMENDMENTS FROM RELEASE 1

- General guidance separated from content requirements.
- Diagrams included in each section to illustrate the activities and information providing input and where the outputs lead to.
- Clarity regarding the function of the Detailed Business Case in analysing the preferred option/s to address the service need.
- Clearer articulation of the requirement to align with 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.
- Clearer articulation of risk and sensitivity analysis.
- Improved content alignment with the Queensland Government Project Assessment Framework and Infrastructure Australia's Assessment Framework requirements.

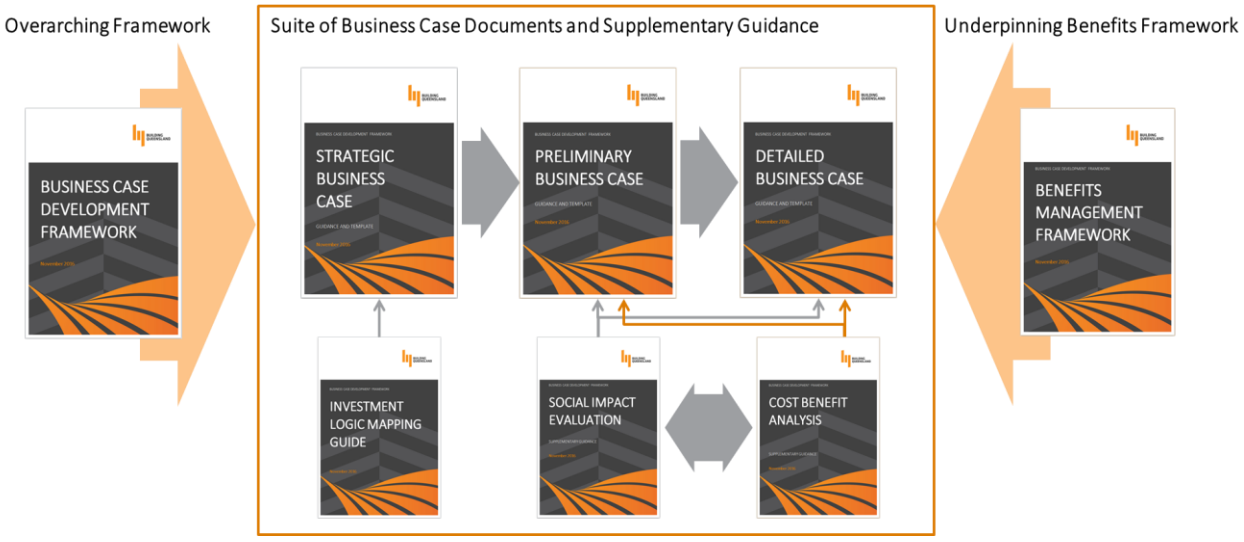
A. INTRODUCTION

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, section-by-section guidance on the requirements for Building Queensland Business Cases. Specifically, the BCDF aims to:

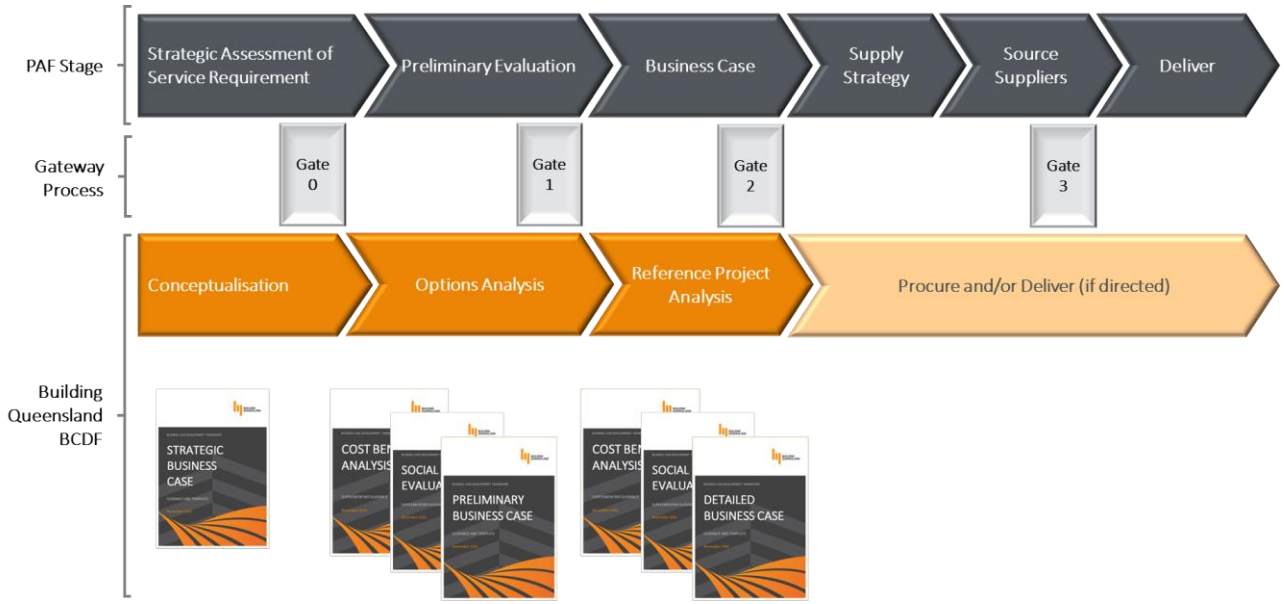
- reduce the costs of developing Business Cases
- reduce the time taken to develop Business Cases
- align with best practice to ensure Business Cases meet state and federal government requirements (e.g. Queensland Government's Project Assessment Framework (PAF) and Gateway Reviews)
- enable government to assess Business Cases consistently and 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 (SBC) and Preliminary Business Case (PBC) stages. In the BCDF, the SBC culminates in identifying high-level initiatives only, leaving the identification of detailed options and shortlisting to the PBC. This is designed to minimise the work required in the SBC before a decision is made to progress it. It also encourages 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 Detailed Business Case

The DBC is the third document in the BCDF and aims to provide evidence for investment in the Reference Project/s. The DBC progresses the work completed in the SBC and PBC. DBC development is also 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.

It is recommended that an SBC and PBC be completed and approved prior to DBC development, as they support the integrity and quality of the DBC.

Table 1: Business Case Development

	STRATEGIC BUSINESS CASE	PRELIMINARY BUSINESS CASE	DETAILED BUSINESS CASE
Purpose	Conceptualisation: ▪ articulates the service need to be addressed ▪ identifies intended benefits	Options consideration: ▪ re-confirms service need ▪ generates possible options ▪ analyses options ▪ identifies preferred option/s ▪ confirms whether to invest in a DBC	Preferred option/s analysis: ▪ develops evidence for investment decision making
PAF stage	▪ Strategic Assessment of Service Requirements (SASR)	▪ SASR (Shortlist Options) ▪ Preliminary Evaluation	▪ Business Case
Supporting documents	▪ Benefits Management Framework ▪ Investment Logic Mapping Guide	▪ Benefits Management Framework ▪ Social Impact Evaluation Guide ▪ Cost Benefit Analysis Guide	▪ Benefits Management Framework ▪ Social Impact Evaluation Guide ▪ Cost Benefit Analysis Guide

The DBC:

- confirms the outcomes of the PBC
- documents how the Reference Project contributes to government policy
- scopes the proposal providing enough detail for the reader to understand how the problem/opportunity is to be addressed
- documents the economic, social, environmental and financial viability of the Reference Project/s to enable the decision maker to decide whether to invest in the project.

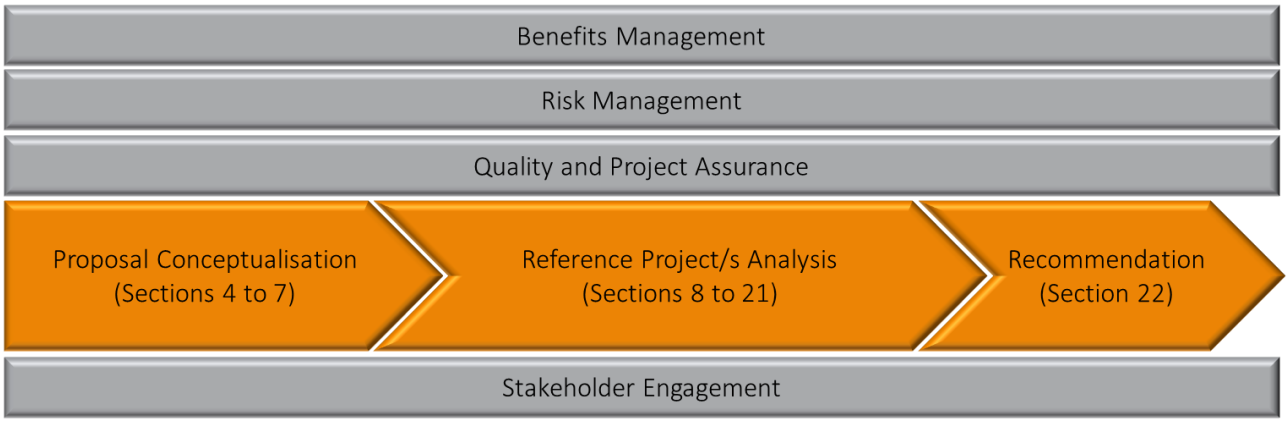
The DBC also confirms whether a project is suitable for delivery as a Public Private Partnership (PPP).

The DBC is made up of three areas:

1. Proposal Conceptualisation (sections 4 to 7)—including the background to the proposal, details of the service need, benefits sought, and current state
2. Analysis (sections 8 to 21)—strategic, social impact, economic, financial and commercial etc.
3. Recommendation (section 22).

All parts should focus on how benefits will be achieved and risk will be managed, as illustrated in Figure 3. Effective stakeholder engagement is important to ensure the Reference Project/s reflects the needs of stakeholders.

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



iv. Purpose of this Guide

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

A. Introduction

B. Overarching Guidance for DBC Development

C. Guidance on Preparing a DBC

A DBC contents list is provided in Appendix 1.

This guide provides a preferred approach for developing a DBC and details the work required to successfully complete a DBC 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 DBC development. As noted in Section C, DBC development will vary according to the complexity of the proposal and the complexity of the development process. High-level, generic tools in this guide include:

- input and output diagrams at the start of each chapter which indicate how the information in sections connects to other sections
- control points after sections 7, 12, 15, 16, 19 and 20 to provide authors with an opportunity to assess whether work has been completed appropriately before moving on
- critical decision points in the control points 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 also 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 Analysis 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 DETAILED 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 be reasonably 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.

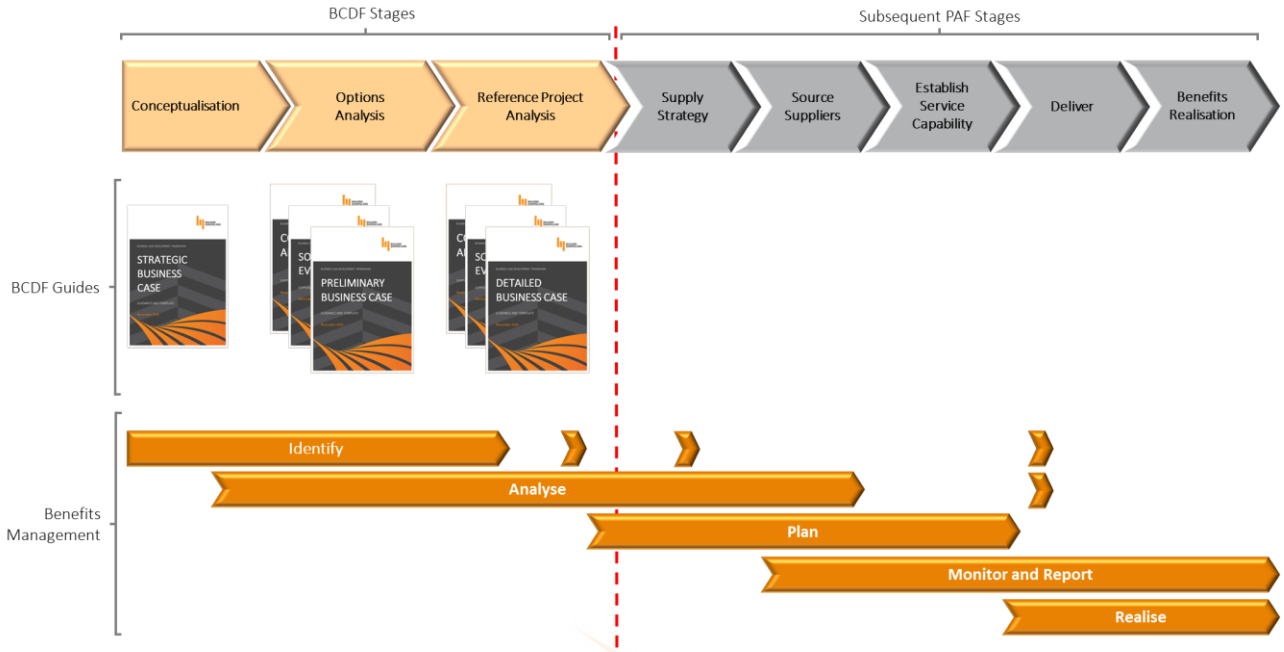
This section provides overarching guidance of how benefits management, risk management, quality and project assurance and stakeholder engagement integrate in DBC development. Further detail is included in the Business Case Development Framework overarching document and the Benefits Management Framework.

i. Benefits Management in the Detailed 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 contribute to strategic imperatives.

During DBC development, the dominant benefits-management activity involves benefits analysis (illustrated in Figure 4).

Figure 4: Benefits Management in Business Case Development



Benefits-management activities in DBC development focus on:

- reconfirming the benefits sought in responding to the service need to ensure that the basis of the design and progression of potential initiatives from the SBC remains valid
- reconfirming and identifying further beneficiaries and other 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 is identified and addressed
  - supports identification and management of stakeholder interdependencies
- identifying and documenting benefits dependencies; this ensures that the Reference Project/s is appropriately designed to reduce potential negative impacts and unintended consequences
- confirming the benefits to be achieved for the Reference Project/s; this:
  - enables benefits to be documented and relevant stakeholders engaged
  - ensures the Reference Project/s effectively aligns to the identified service need
- identifying any potential dis-benefits (adverse impacts) and considering how they might affect the Reference Project/s design; this enables the design to be either adjusted to minimise the impact of dis-benefits or Reference Project/s rejected
- analysing and documenting monetary and non-monetary benefits for the Reference Project/s
- documenting benefits dependencies and assumptions
- identifying any benefits risks, which enables those risks to be addressed in the Reference Project/s design
- identifying any risks to realising the benefits (the Risk Register should be updated accordingly).

This initial stage of identifying and conceptualising benefits 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 emerging benefits are identified, discarded and analysed. An example Benefits Register is included in Appendix 2.

ii. Risk Management in the Detailed Business Case

Risk should be addressed throughout the DBC development process to ensure risks are effectively considered and managed in the Reference Project/s and to ensure the Reference Project/s design is appropriately adjusted to respond to those risks. Risk-management activities completed during DBC development include:

- identifying proposal risks to ensure the Reference Project/s is designed to effectively address those risks—i.e. risks associated with changes in the proposal background, service need, stakeholders, options generated, or strategic and political context
- identifying methodological risks in DBC development—i.e. the processes, assumptions and practices underpinning the assessments (social, economic, environmental and financial); and data reliability, accuracy and currency

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

Thorough risk consideration and management during DBC development ensures that the Reference Project/s adequately recognises and account for risks, and that risk consideration is included in all economic, social and financial analysis. The Risk Register from the PBC should be continually updated to capture risks identified or accounted for in DBC 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. Further information on risk is also included in the Business Case Development Framework–Overview document.

iii. Quality and Project Assurance in the Detailed 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 quality and project assurance requirements in DBC development (whether Building Queensland provides a lead or assist role) are detailed in the Project Internal Assurance Framework. Quality and project assurance mechanisms may include:

- establishing appropriate governance arrangements to oversee DBC development for example:
  - Project Steering Committee
  - scope and change management controls
  - Project Quality Management Plan
  - Project Stage Management Plan
- managing the DBC day-to-day 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 the data, supporting assumptions and modelling analysis to ensure the analysis is valid, reliable and accurate, and to ensure the analysis effectively supports the process of identifying the service need and project net economic benefits
- 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 2 Review which is mandatory for projects that Building Queensland lead.

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–Overview document and the Building Queensland Project Internal Assurance Framework.

iv. Stakeholder Engagement in the Detailed Business Case

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

Stakeholder engagement activities in the DBC stage may support:

- greater understanding of different stakeholder's perceptions of the service need, which can help in identifying appropriate initiatives
- effective identification of stakeholders' expectations regarding the potential project and the benefits they seek
- better outcomes and greater accuracy in identifying public interest considerations, refinement of the Reference Project/s and reference design
- 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, there are risks associated with stakeholder engagement. Stakeholder expectations must be carefully managed.

Where stakeholders are engaged, the initial Stakeholder Engagement Plan (SEP), which was developed and approved by the Senior Responsible Officer (or equivalent) during SBC or PBC preparation, should be updated and re-approved by the project owner. The SEP guides stakeholder engagement activities throughout DBC development. The SEP should be refined as DBC 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 4).

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

New Zealand Treasury. 2016. Managing Benefits from Projects and Programmes: Guide for Practitioners. 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. 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://socialicense.com/
- http://learningforsustainability.net/social-license/
- http://accsr.com.au/

State Government Victoria (Department of Education and Early Childhood Development). 2011. Stakeholder Engagement Framework. www.eduweb.vic.gov.au/edulibrary/public/commrel/policy/oct2011stakeholderengagement.pdf

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

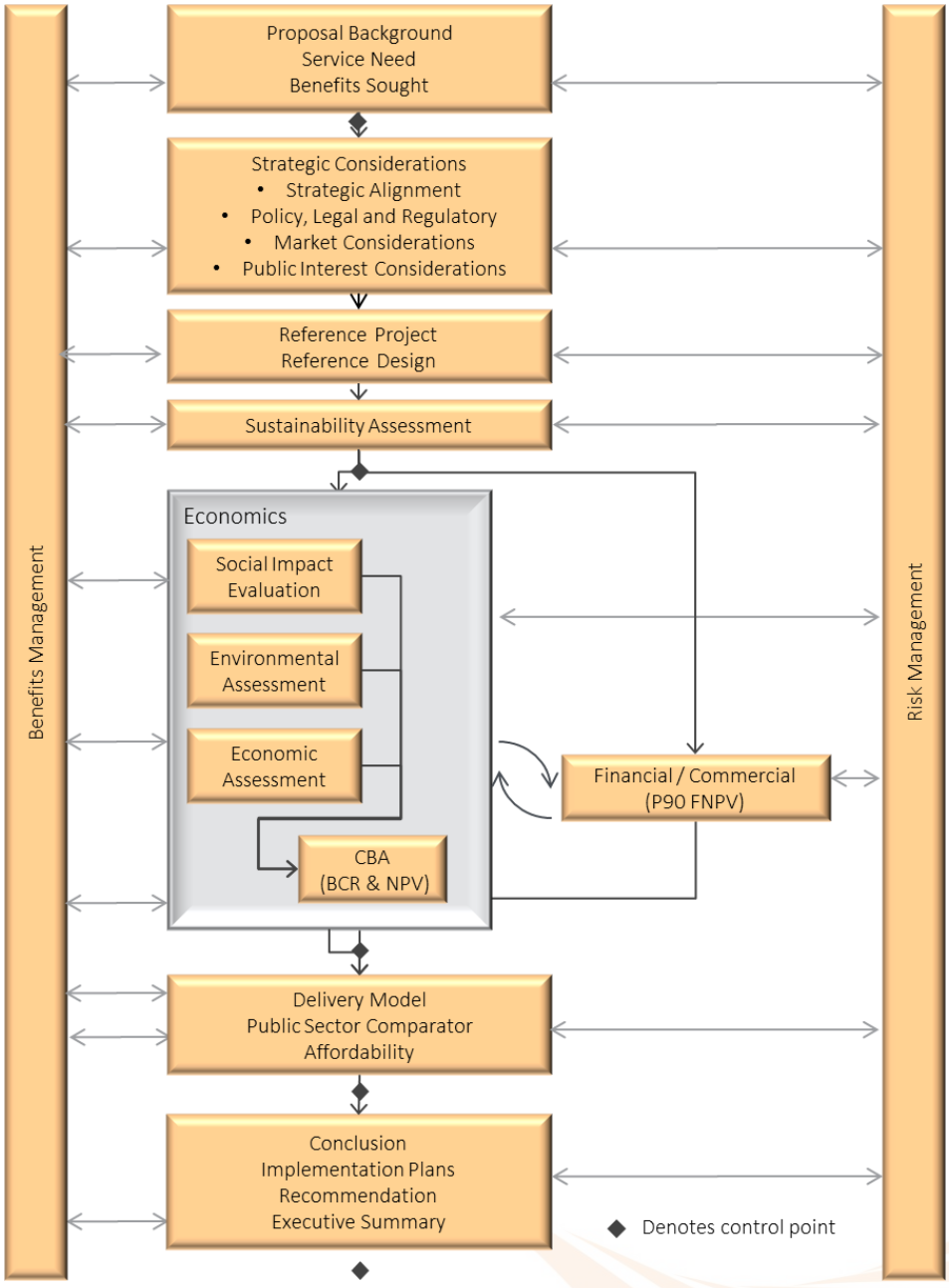
C. GUIDANCE ON PREPARING A DETAILED BUSINESS CASE

The following sections form the basis of a Building Queensland DBC. Although a Building Queensland DBC is expected to include all the numbered sections from this point forward, the actual order of the sections may vary subject to the type of investment and agency preferences. This section order is at the discretion of the proponent and author. A contents list of DBC sections (without supporting explanation) is included in Appendix 1.

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

Business Case development is **not a linear process**. Some activities will inform or refine other assessments, and information developed within sections of the DBC will link to sections (as illustrated in Figure 5).

Figure 5: Development of the Detailed Business Case



1. EXECUTIVE SUMMARY

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

- a summary of service need and problem statements
- a summary of outcomes and benefits sought
- a summary of the scope of the Reference Project/s
- a summary of all detailed assessments and analysis (i.e. strategic, risk, cost, economic, environmental, social, sustainability, funding, financial, delivery and affordability)
- recommendations for decision makers.

The Executive Summary is the last section completed when developing a DBC.

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 after the preferred option has been identified.

2.1. Project Owner

Outline the project owner including a project team structure. Outline roles within the team structure.

2.2. Steering Committee

Outline the Project Steering Committee Terms of Reference and membership.

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 DBC development process. Details of the approaches used for specific assessments (Sections 8 to 19) 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 throughout the process to assess the Reference Project/s.

Document the risk approach used, whether it is aligned with the agency 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.

Include a description of the process used to identify and quantify/qualify risks. Include the Risk Register as an attachment to the final DBC document.

3.2. Stakeholder Engagement Approach

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

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

3.3. Options Selection Approach

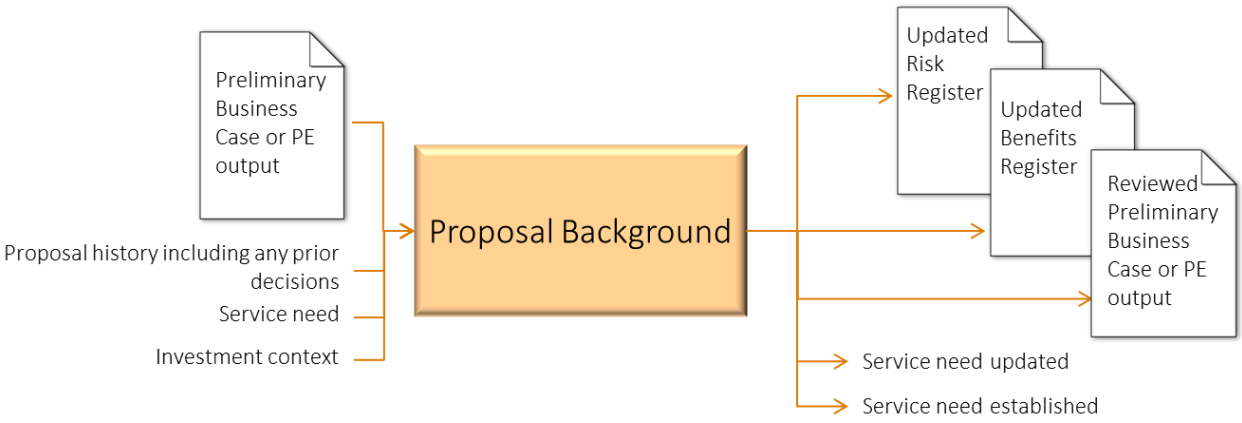
Provide information on the approach to options selection, both for the options filtering and the identification of the preferred option/s from the PBC. This assists the decision maker to understand how the Reference Project/s was arrived at. Where a review of the PBC has resulted in changes to the preferred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

Document any assumptions underpinning the assessment of the shortlisted options including the CBA, SIE and financial analysis that contributed to the result.

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 the service need was first identified and the proposal selected for consideration
- the location of the proposed project
- the scope and depth of all relevant investigations and studies
- the investment context (political and strategic)
- a summary of prior decisions
- any independent assurance processes completed to support SBC and/or PBC development (e.g. Gateway Reviews).

4.1. Review of the Preliminary Business Case

Review the PBC or output from a Preliminary Evaluation (PE) to confirm the service need and benefits sought. Document any material changes since the SBC and PBC were prepared, noting how they have been considered in the progression of the investment concept through the PBC. This may include:

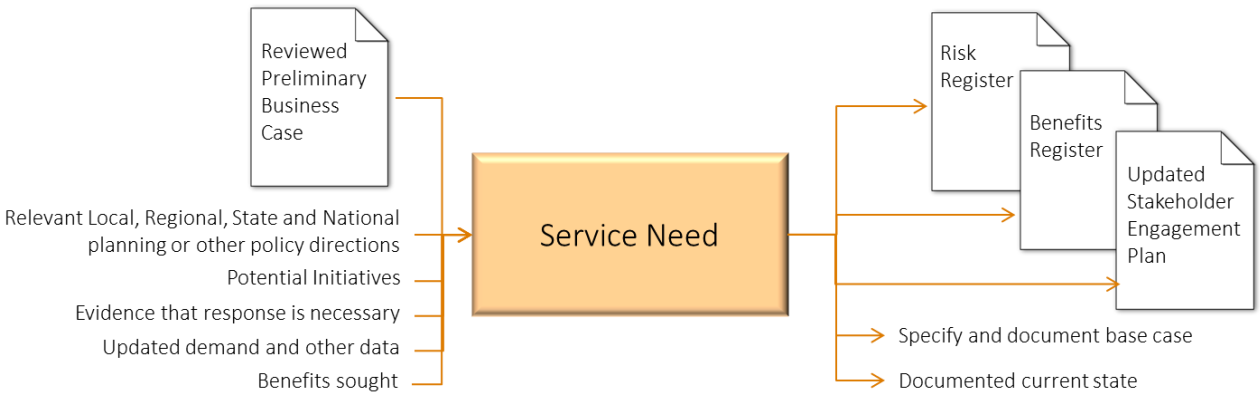
- planning and policy changes
- changes and impacts (i.e. strategic considerations/alignment/changes in government objectives)
- changes to project objectives, scope, needs, benefits and risks
- changes to the environment (e.g. new initiatives/projects, emerging stakeholders, emerging opportunities, 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 PBC 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 undertaken to support the identification of the Reference Project/s. The service need may result from a problem or opportunity, and this section must include evidence of why it is necessary to address that 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



The analysis included in this section should have been completed during SBC (or PBC) preparation.

If a PBC was completed using the Building Queensland PBC template and guide, this work should be reviewed and updated (particularly if significant time has elapsed since the PBC was prepared). The results of this review and update should be included in Section 4.1.

If a PBC was not prepared using the Building Queensland template and guide, it is recommended that the analysis required by the PBC be undertaken and the results presented in this section. Any relevant planning work or feasibility studies previously undertaken should be used as an input into this analysis.

5.1. Current State

The 'current state' provides the decision maker with details of the service need, its context and characteristics. 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 notes 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 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 Reference Project/s. Stakeholders may include individuals, organisations or agencies (including other government agencies) who:

- may be impacted by the Reference Project/s, specifically the underlying problem or failure to take up an opportunity
- can influence the design or delivery of the Reference Project/s
- may potentially be disadvantaged if the Reference Project/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 Reference Project/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
- 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 DBC.

5.3. Benefits Sought

Understanding the benefits to be sought when addressing the service need may include consideration and documentation of:

- the intended outcome/s for the project and the benefits sought
- the stakeholders that may be affected/able to support the 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 DBC development and should be included in the Benefits Register as an attachment to the finalised DBC.

5.4. Preliminary Business Case Options

Summarise the options considered in the PBC. Include details of:

- all options considered in the PBC describing their impacts (both positive and negative) and likelihood of responding to the service need and achieving the benefits sought
- additional options or comment about discarded options.

This is a critical section of the DBC as it provides transparency and confidence that the recommended option/s (Reference Project/s) will deliver the benefits sought. A copy of the options summary table from the PBC (Table 2 in the PBC) could be included here. A review of the PBC options (refer to Section 4.1) should:

- consider whether any of the initiatives identified in the PBC need to be deleted, modified or added to
- report any changes to the options and the justification for the change
- note any changes to the options, or where there has been a lag or delay between project phases, repeat the multi-criteria assessment performed in the PBC to select a Reference Project/s
- present the results of the re-assessment of options.

Table 2: Example Option 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 addressng 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

The key metrics that formed the output of the PBC should be restated here (refer to Table 2). Any changes since the PBC should be clearly identified and explained. Note: unlike in the PBC development, this is not a full review but a sufficient review to reconfirm the choice of the Reference Project/s.

5.5. Recommended Option/s (Reference Project/s)

Summarise the reason for selection of the preferred option/s and the criteria for success (Section 15.4 of the PBC). The rationale for the recommendation must be based on the analysis undertaken during the PBC and updated in the DBC.

Further analysis is not required here, only the reason why the preferred option/s was selected over others. It is important to be as descriptive as possible to communicate how the decision was made.

If the analysis reveals a significantly different Reference Project/s reconsider the DBC and seek endorsement before proceeding. If re-evaluation of the service need is not significantly robust consider not proceeding further.

6. BASE CASE

Development and analysis of a base case is essential as it is the benchmark against which the Reference Project/s is 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 of what situation will exist in the absence of the proposed investment, policy change or project being approved
- provides the benchmark against which the economic analysis and SIE is compared and ultimately informs the investment choices
- 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.

Consult cost accountants, reporting units and portfolio analysts within the agency during the identification and specification of the base case. The documentation of the base case used in the PBC may be used as a basis for the base case in the DBC however, it should be updated to reflect any environmental or operating changes since the PBC was written.

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.

7. REFERENCE PROJECT/S

This section provides clear details of:

- what the Reference Project/s will accomplish (i.e. objective/s)
- what the project will and will not include (i.e. scope)
- the expected results (i.e. outcomes)
- the key parties (i.e. stakeholders)
- the recommendation, clearly stating why this option will enable the Queensland Government to deliver the greatest benefit to the community.

This section should consider the budgetary impacts and potential government (local, state and federal) funding sources for the Reference Project/s. Queensland Treasury must be consulted.

7.1. Objectives, Outcomes and Benefits

Include a summary of the project objectives, outcomes and expected benefits. Explain how the Reference Project/s will address the service need detailed in Section 5.

Document how the Reference Project/s aligns with local, regional, state and federal planning or may be of national significance.

7.2. Scope

Include a summary of the project, including key technical features (e.g. design, geotech), functionality, operations, services, inclusions and exclusions.

7.3. Activities

Include an outline of the proposed project program (including critical path, early work, commissioning and overall project duration).

7.4. Stakeholders

Summarise stakeholder information and include full details in the SEP as an attachment to the finalised DBC.

7.5. Implications of Not Proceeding

Include a description of the key impacts of not proceeding with the project, including impacts on stakeholders.

7.6. Reference Design

Details of the Reference Design should include:

- assumptions underpinning the design
- any constraints
- specification of the level of the design (as a percentage).

The Reference Design can only be finalised after all assessments are completed, following its refinement during DBC development.

CONTROL POINT 1

Before progressing the DBC, 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 complete)d—refer to Section B (iv)	3.2		
4	Proposal background documented	4		
5	PBC and/or other previous bodies of work reviewed	4		
6	An independent or peer review of the PBC analysis, outcomes and recommendations (if appropriate)	4.1		
7	Service need and benefits documented (including noting any changes since the PBC)	5		
8	Options analysis and selection of the preferred option/s (undertaken in the PBC) reconfirmed	5.4		
9	Options filter summary included and options selection approach documented	5.4 and 3.3		
10	Base case for the Reference Project/s reasonable and clearly defined (refer to CBA and SIE Guides)	6		
11	Reference Project/s initially defined including objectives, scope, outcomes and expected benefits	7		
12	Benefits Register updated—refer to Section B (i)	Appendix 2		
13	Risks associated with Sections 3, 4, 5, 6 and 7 assessed and documented in the Risk Register	Appendix 3		
14	All sources of evidence underpinning the service need, base case or Reference Project/s included in the reference list for the DBC	23		
#	Critical decision points	Section	Yes	No
1	Has the service need been reviewed to confirm that it continues to exist?	5		
2	Is the preferred option/s 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?	5.4		
3	Is the proposal subject to momentum bias?			

8. STRATEGIC CONSIDERATIONS

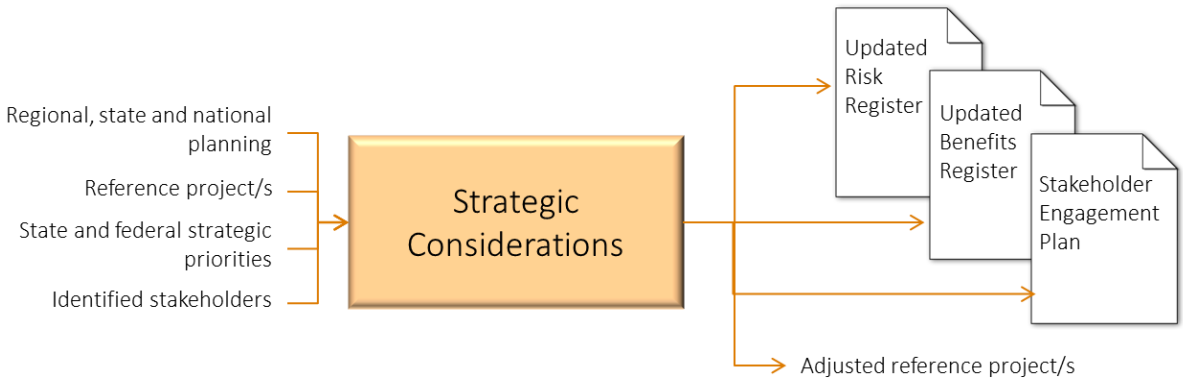
This section should include an assessment and comparison of potential impacts on the Reference Project/s including:

- strategic alignment to state, federal and local government programs and strategies
- any agency or government policy considerations which may affect the Reference Project/s
- projects/initiatives not directly related to the Reference Project/s that may enhance its benefits if the planning and delivery were integrated to achieve additional/greater outcomes.

While the relevant results of the Strategic Considerations section in the PBC will provide a basis for this chapter, Strategic Considerations should be considered for the Reference Project/s to ensure impacts are adequately considered in the DBC.

Figure 8 illustrates the inputs required to develop the Strategic Considerations section and the outputs that result from it.

Figure 8: Inputs and Outputs to the Strategic Considerations Section



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

8.1. Strategic Alignment

Document how the Reference Project/s will fit with, or contribute to, the strategic objectives of the agency and government, and the relevant national objectives and programs (where appropriate). The description of the strategic alignment should include how the project will align (or not align) and its potential contribution to each relevant strategy, program or plan.

Include consideration of the fiscal environment and industry context.

8.2. Policy Issues

Assessing policy considerations includes:

- describing the impact, if any, of the Reference Project/s on existing policies and standards (or vice versa) within government, agencies and relevant stakeholder environments
- describing any limitations imposed by the policies and standards and the known effect on the Reference Project/s, such as any impact to Reference Project/s benefits.

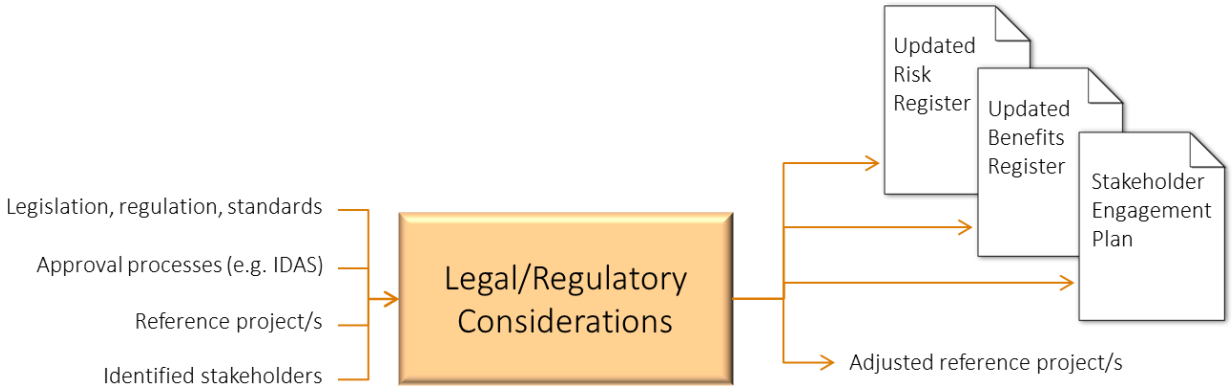
Identified impacts and limitations should be further characterised as either an advantage or a disadvantage.

> Adjust the Reference Project/s 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 strategic considerations should be shown in the DBC's costing summary (Section 16).

9. LEGAL AND REGULATORY CONSIDERATIONS

Document the legal and regulatory considerations and the potential impact of these considerations on the Reference Project/s. Figure 9 illustrates the inputs required to develop the Legal and Regulatory Considerations section and the outputs that result from it.

Figure 9: Inputs and Outputs to the Legal and Regulatory Considerations Section



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

9.1. Legislative Issues

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

Where new legislation is proposed, a Regulatory Impact Statement (RIS) is required and should be included as an appendix to the DBC.

9.2. Regulatory Issues

Document any regulatory considerations that may prevent, impede or have a significant impact on the Reference Project/s. Issues may include consideration of 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 in relation to dam safety). Other considerations may include issues that influence competition or jurisdictional responsibilities.

9.3. Approvals

Document any approval processes that may impact on the delivery of the Reference Project/s, noting any timing considerations or potential impediments to approvals. Early engagement with other departments and regulatory agencies may assist in identifying approval requirements.

Include an Approvals Matrix (see Table 3) to summarise the permits, approvals or licences that may be triggered during the project along with a description, timing and the responsible authority for each.

Table 3: Example Approvals Matrix

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

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

9.4. Other Legal Matters

Identify any other legal matters that may influence the Reference Project/s, 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 in the process of being finalised or renegotiated
- contractual disputes
- claims by third parties including native title and cultural heritage
- court decisions that may impact on the legislative powers of government
- legal or contractual issues associated with the proposed delivery model.

Adjust the Reference Project/s 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.

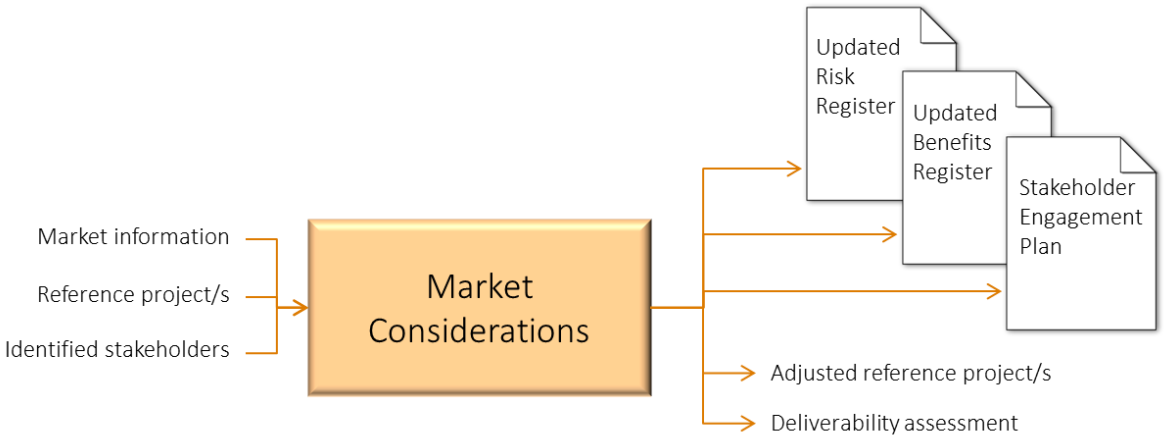
Any additional costs incurred to address strategic considerations should be shown in the DBC's costing summary (Section 16).

10. MARKET CONSIDERATIONS

This section describes the key market considerations and assumptions relating to the Reference Project/s. It supports decision making and the development of a procurement strategy and identifies opportunities and risks related to the procurement.

Figure 10 illustrates the inputs required to develop the Market Considerations section and the outputs that result from it.

Figure 10: Inputs and Outputs to the Market Considerations Section



As the level of private-sector involvement varies considerably between projects, information should be sought from the private sector concerning the Reference Project/s. Information may include:

- market information regarding the bid depth, market risk appetite, availability of contractors and any other major projects in the Building Queensland's Infrastructure Pipeline Report
- potential delivery models and issues concerning the project from an industry perspective
- project feasibility, appetite/attractiveness, risk sharing, bankability and demands on industry at the likely time of going to market, based on other government and non-government projects in the area
- feedback on matters such as project scope and specification using the shortlisted options, and any opportunities for design and construction innovation.

Where the Reference Project/s is highly sensitive to assumptions about the attractiveness, likely involvement of the private sector and the terms on which that involvement might occur, those assumptions need to be validated through market sounding. Market sounding can also be used to gain feedback on ways of presenting the project to the market to increase its attractiveness and reduce obstacles to involvement. Queensland Treasury can assist with the development of a Market Sounding Plan if required.

Market sounding during DBC development will build upon and provide more detail than work undertaken during PBC development. It will also identify any changes in the market since PBC completion could impact on the Reference Project/s.

Subject to the type of project, market sounding may be necessary earlier, to enable effective design of the Reference Project/s.

Information provided by the market should be critically evaluated, in particular if there is different or inconsistent market feedback and response. Care must be taken to ensure participants' expectations regarding project implementation and options are managed appropriately and with due regard for probity.

> 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.

10.1. Market Sounding Objectives

Market sounding refers to the collection of activities undertaken to determine the market's appetite for involvement the proposal and/or explore possible solutions. Document the objectives for market sounding for the Reference Project/s. They 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).

10.2. Market Sounding Approach

Document the approach to market sounding including the rationale for the approach adopted, details on which companies or industry bodies are to be approached and why, and key areas where market feedback is being sought.

For the DBC this may involve detailed desktop market sounding of trends and issues, including formal requests for information. In some cases, this will involve conducting formal market sounding processes using structured engagement with industry. As market sounding should focus on the private sector as a whole rather than on any individual company, structured engagement requires careful consideration regarding which companies and industry groups will be approached.

Planning and structuring the engagement is important to minimise the risks of providing information to companies which may give them an unfair advantage during any future procurement processes. A clear probity protocol is required to assist in managing such risks. Probity protocols should not prevent discussions with the market, but they should ensure that care is exercised so that no company has, or is perceived to have, received or provided information that offers them an unfair advantage in any subsequent procurement process.

10.3. Market Feedback

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

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

10.4. Assessment of Market Capability

Provide a summary of the market capability and interest in the proposal including delivery or financing options. Consideration should be made regarding local market engagement during PBC development as well as delivery. Where the local market is to be targeted during delivery this should be reflected in the economic and financial analyses.

Information from this section is used to inform the Financial and Delivery Model sections.

> Adjust the Reference Project/s 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 strategic considerations should be shown in the DBC's costing summary (Section 16).

11. PUBLIC INTEREST CONSIDERATIONS

An assessment of public interest provides:

- information for readers of the DBC about whether the Reference Project/s will provide (perceived or real) equitable outcomes for all stakeholders
- an opportunity for any potential negative impacts of the Reference Project/s to be managed and, where possible, adjusted to mitigate risks or realise opportunities.

Where a PBC has been completed and the preferred option/s reviewed in Section 5, the results of that review should be refreshed to ensure that no further public-interest considerations have arisen.

Document the outcomes of an assessment of whether the Reference Project/s is in the public interest focusing on:

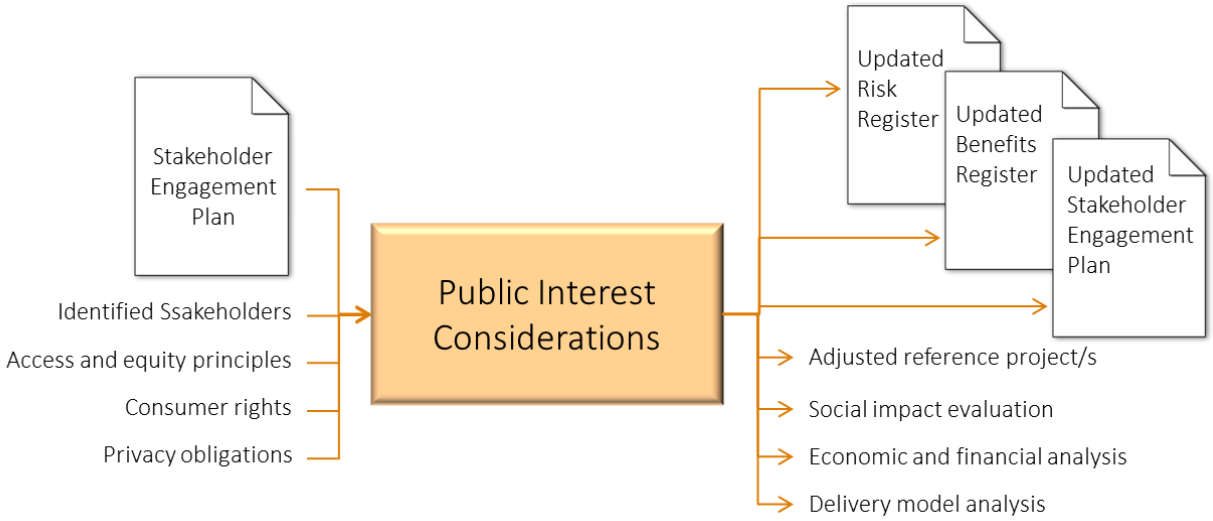
- impacts on stakeholders
- public access and equity
- consumer rights
- safety and security
- privacy.

Also consider:

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

Figure 11 illustrates the inputs required to develop the Public Interest Considerations section and the outputs that result from it.

Figure 11: Inputs and Outputs to the Public Interest Considerations Section



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

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

11.1. Community Consultation/Stakeholder Engagement

Document any community consultation and stakeholder engagement activities undertaken to identify public interest matters. This section should describe the:

- overall community consultation or stakeholder engagement approach
- community consultation and stakeholder engagement activities undertaken (e.g. information sessions, surveys and/or working groups)
- social licence status (i.e. disapproval, tolerance, endorsement or advocacy from the community)
- overall engagement outcomes
- 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 that may not have been previously considered. The consultation process should also 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 Reference Project/s.

11.2. Impact on Stakeholders

The Reference Project/s should be assessed for its potential impact on stakeholders, including individuals and communities. Include a list of stakeholders (in Section 5.2), their area of interest/impact and any engagement actions required. Areas of public interest may include:

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

11.3. Public Access and Equity

Public access and equity refers to ensuring that services are available to all groups within society who require those services. The 2011 Australian Government Access and Equity Panel stated:

> *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.*

The Reference Project/s should be assessed to ensure that all groups within society can effectively realise the expected benefits of the investment. Documentation should include a list of any disadvantaged groups who will use the infrastructure or service and how they will use it. If applicable, include the identification of any areas of potential inequity of access resulting from the proposed location, pricing of services or any social and economic impacts.

11.4. Consumer Rights

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

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

This section should document any potential consumer-rights impacts identified for the Reference Project/s. In particular, outline where the Reference Project/s 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.

11.5. Safety and Security

Safety and security considerations include corruption, crime, public health risk, quality and security of supply. The Reference Project/s should be assessed for any potential security and community safety issues.

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

11.6. Privacy

Document any potential privacy issues for the Reference Project/s 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.

> Adjust the Reference project/s based on the results of the public-interest considerations review. This is particularly relevant 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 DBC's costing summary (Section 16).

12. SUSTAINABILITY ASSESSMENT

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'.

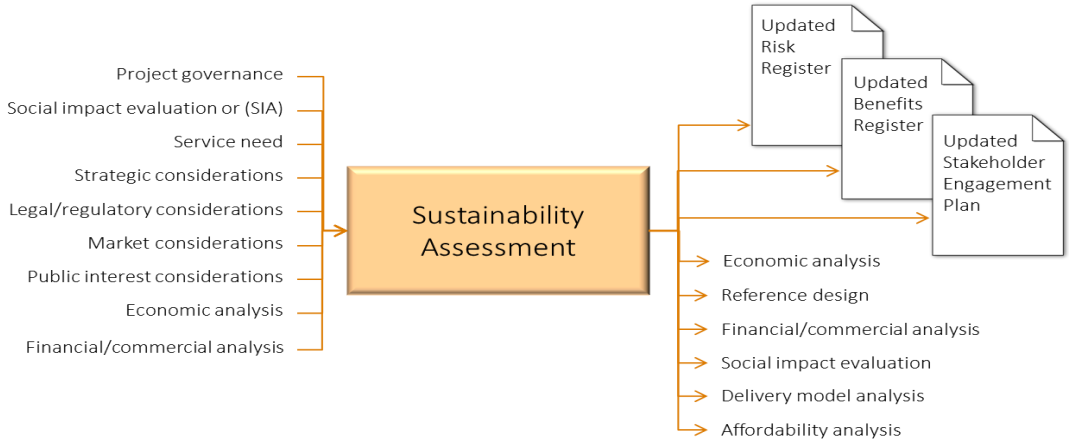
Sustainability assessment in the DBC:

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

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

Figure 12 illustrates the inputs required to develop the Sustainability Assessment section and the outputs that result from it.

Figure 12: Inputs and Outputs to the Sustainability Assessment Section



Sustainability matters should be reflected in the deliverability assessment, the environmental assessment, the social impact evaluation, the risk assessment and the project cost estimates.

This assessment draws on analysis undertaken throughout the DBC, including but not limited to the economic analysis, environmental assessment and social impact evaluation. The sustainability assessment aims to address how to best design and deliver the Reference Project/s from a sustainability perspective. In addition, the overall sustainability achievement of the Reference Project/s may be a relevant consideration for government in choosing to fund a project.

12.1. Application

Projects between $50 million to $100 million should use the Building Queensland sustainability assessment approach. Projects assessed at above $100 million should either use a fit-for-purpose tool (e.g. ISCA) or the Building Queensland approach.

The assessment format will indicate the level of achievement for each sustainability principle rated according to the achievement levels described in Table 5 and the criteria for this assessment.

12.2. Approach

Document sustainability considerations relevant to the Reference Project/s in order to understand and, where possible, avoid or mitigate immediate and long term impacts. A sustainability assessment supports an understanding of the economic, social and environmental impacts of the project not just its financial performance. However, the lens through which the assessment is completed is purely a sustainability impact view.

The Sustainability Assessment should consider the quadruple bottom line (QBL) (governance, environmental, social and economic) impacts and opportunities. This assessment is based on the Infrastructure Sustainability (IS) rating scheme themes and categories and was developed in collaboration with the Infrastructure Sustainability Council of Australia (ISCA). Principles covered in this assessment are included in Table 4.

A description and guiding questions for the principles is included in the Sustainability Assessment tool in Section 12.3.

Table 4: Sustainability Assessment Principles

PRINCIPLES FOR SUSTAINABILITY ASSESSMENTS			
Governance	Environment	Social	Economic
Context	Energy and carbon	Stakeholder engagement	Business case
Leadership	Natural hazards	Cultural consideration	Benefits realisation
Sustainable procurement	Green infrastructure	Heritage	
Resilience	Pollution	Workforce	
Innovation	Resource recovery		
	Water		
	Materials		
	Ecology		

12.3. Sustainability Assessment Tool

A sustainability assessment should be considered up-front and undertaken in conjunction with the risk assessment as it will influence the understanding and assessment of project risk. The 11 steps in the assessment are:

1. Evaluate the principles contained in the sustainability assessment approach (Section 12.1) for relevance to the project. Not all of the principles may be appropriate.
2. Identify the broad suite of stakeholders, their interests and drivers and the Reference Project/s impact on them (drawing information from SIE Section 11 of the DBC).
3. Conduct a sustainability workshop involving diverse expertise to apply the sustainability framework, and develop innovative approaches to all relevant principles. The workshop should take a holistic, long-term and integrated perspective.
4. The questions for each principle are an important guide for the issues to be discussed and addressed in the sustainability workshop. However, the project type, location, context and issues may suggest alternative or additional questions.
5. Identify any principles that are not relevant to the project. Indicate these in the assessment format, with an accompanying justification of why the principle is not relevant. A level of achievement is not required in these cases.
6. The sustainability workshop should include the following steps:
    - examine the wider system and the significant connections or relationships for the project
    - identify the most important drivers of change 10–20 years into the future and their implications for the project
    - identify the broad suite of stakeholders—their interests, drivers and likely project impacts
    - identify any principles that are not relevant to the project
    - use the guiding questions to direct thinking and develop solutions that are innovative, lasting, and result in multiple benefits. Integrated solutions are likely to have environmental, social and economic benefits, or benefits across a number of principles

- challenge the project team to go beyond a 'business as usual' response when developing solutions, and to avoid a narrow approach or one that only focuses on risk and overlooks opportunities.

7. The level to which each principle has been fulfilled should be indicated in the assessment format template (Table 6). The information and evidence presented for each principle must substantiate this assessment, and be concise but with sufficient detail to demonstrate the key elements and benefits of the approach. Information should be succinctly presented (dot point style is encouraged), with a maximum length of half a page per principle. Outline information sources and/or sections of the DBC or supporting documentation that have been used to undertake the assessment.
8. Unless already captured in the assessments in Sections 13, 14 or 15, the impacts of significant sustainability issues (rated poor, compliant or basic) should be reflected in the risk assessment where appropriate and, if required, subsequently in the project cost estimates.
9. Unless already captured in Sections 13, 14 or 15, impacts identified in the sustainability assessment that can be monetised should be incorporated in the CBA in Section 15.
10. Unless already captured in Section 13, social or environmental impacts that cannot be monetised should be incorporated into the social impact evaluation.
11. An overall achievement level across the 19 principles (advanced, moderate, basic, compliant or poor) should be assigned and reported.

Table 5: Sustainability Assessment Rating

SUSTAINABILITY ASSESSMENT RATING	
Level	**Criteria**
Advanced	▪ Generates significant additional value and new opportunities not previously evident, such as changing a liability into an asset ▪ 'Designs out' the problem up-front rather than relying on managing impacts later ▪ Solutions generate flow-on benefits outside the project boundary
Moderate	▪ Solutions to significant issues result in multiple benefits through economic, social and/or environmental outcomes ▪ Meets immediate community and user needs and will be resilient and efficient into the future ▪ Significant innovation and leading practice incorporated into the project
Basic	▪ Avoids harm and negative effects ▪ Solutions create project efficiencies ▪ Solutions have an immediate or short term focus
Compliant	▪ Meets legislative and regulatory requirements
Poor	▪ Fails to meet legislative and regulatory standards ▪ Solutions may result in dis-benefits and negative effects

Increasing project sustainability

It is assumed that all projects will meet this level. Sustainable solutions are therefore expected to go beyond legislative and regulatory compliance.

Table 6: Sustainability Assessment Template

SUSTAINABILITY ASSESSMENT	
Demonstrate how the project fulfils the following sustainability principles *Succinctly outline the major initiatives or elements of the approach that will achieve each principle, plus the most significant outcomes or benefits. Specific, quantitative information should be included where available.* Information should be succinct (dot points encouraged) with no more than half a page per principle.	**Achievement level of the principle:** (indicate level achieved) **Advanced, moderate, basic, compliant, or poor**
GOVERNANCE	
1. Context All infrastructure projects sit within a broader context, and should be planned, designed and operated to connect with the wider system (including other infrastructure, economic activity, landscapes, population hubs and movements, flows of resources, materials, goods and people). This could occur at neighbourhood, town, city, region or state scales.	
▪ What is the service need being addressed by this project? Have social, environmental and economic issues been considered?	
▪ What are the key elements, interrelationships and interdependencies of the wider system or network for this project that are fundamental to its long-term effectiveness?	
▪ How will the project integrate with, or respond to, these elements?	
2. Strategic planning Design infrastructure as the solution to the identified service need, taking into consideration the strategic goals and objectives. Focus on longer term use and outcomes so that the infrastructure leaves a positive legacy. Consider adaptability to respond to future changes, challenges and trends.	
▪ Has a full range of options been considered including non-infrastructure solutions?	
▪ How will the project solve the identified service need? How does it align with departmental and/or state goals and objectives?	
▪ Does the project respond to the most significant drivers of change over the next two decades (i.e. those with greatest impact and most probable) including technological, demographic, political, environmental, and economic trends?	
3. Leadership, knowledge sharing and innovation The leadership team is responsible for implementing, measuring and reporting on the sustainability performance as well as creation of a culture of innovation and knowledge sharing.	
▪ How will this project engage a committed leadership team to embed sustainability into the planning, design, building and operation of this infrastructure project?	
▪ How will a culture of innovation be created across the project life cycle and include both proponent and contractor?	
▪ How will knowledge and lessons be shared with the project team, other projects and the supply chain? How will lessons learnt from previous projects be incorporated?	
▪ How will the supply chain be prepared for the sustainability and innovation requirements of this project?	
▪ How will you consider and respond to local Indigenous and other cultural elements in the design, delivery and operation of this project?	

SUSTAINABILITY ASSESSMENT (CONTINUED)
4. Procurement and supply chain Procurement activities are responsible and they consider human rights, society and the environment.
▪ How will sustainable procurement, including human rights, society and the environment be incorporated into the project's procurement activities?
ENVIRONMENT
5. Material use Materials used on the project have a low life cycle impact and low toxicity.
▪ How will this project assess the materials used in terms of their environmental life cycle impact and toxicity?
6. Climate-change mitigation The project will mitigate climate change through identifying an infrastructure solution to reduce global carbon emissions.
▪ How will this project mitigate climate change?
7. Water management Managing water consumption and discharge according to local conditions now and in the future.
▪ Will this project use large amounts of water in construction and operation?
▪ Is this project located in an area of water scarcity? If not, how will water scarcity in the future affect its construction and operation?
▪ Will this project discharge water into sensitive environments during construction and/or operation?
8. Resource recovery Reducing waste generated and increasing re-use in construction and operation.
▪ How will this project manage waste and resource recovery?
9. Land selection The project is located on previously disturbed land and limits impacts to local habitat.
▪ Will this project be located on previously disturbed land?
10. Ecology The local and regional habitat and ecology will be enhanced.
▪ How will this project improve ecology within the local region?
▪ Will this project impact on critical natural capital (irreplaceable natural features, species, habitats, etc.)?
11. Green infrastructure Traditional infrastructure is replaced with natural processes to do the same job. The term 'green infrastructure' refers to an interconnected network of landscape assets that is intertwined with engineered (grey) infrastructure and buildings (all the natural, semi-natural and artificial networks of multifunctional ecological systems within, around, and between urban areas, at all spatial scales).
▪ Describe the opportunities to replace traditional infrastructure (grey) with green infrastructure.

SUSTAINABILITY ASSESSMENT (CONTINUED)	
12. Sustainable procurement Creating positive social outcomes through procurement spend and processes.	
▪ How will this project use procurement spend to create socially and environmentally beneficial outcomes (e.g. the procurement of environmentally friendly products and services)?	
13. Employees Supporting and improving the lives of all employees, including sub-contractors of the infrastructure project.	
▪ How will this project support and improve employee outcomes especially for marginalised and disadvantaged groups?	
SOCIAL	
14. Social return The project will have a positive social return on investment meaning that for every dollar spent, there will be over one dollar worth of social outcomes.	
▪ What will be the social return of this project? Describe how this project will benefit society (e.g. reduced travel times, increased well-being, improved air quality, increased social cohesion).	
15. Community and stakeholders Understanding and incorporating community and stakeholder views including marginalised and affected groups, to increase the social license to operate.	
▪ How will community and stakeholder views be considered and incorporated into the decision making processes throughout the project?	
▪ How will marginalised and affected groups be included in the engagement?	
▪ What is the legacy left behind beyond the legacy of the project itself (e.g. a bike path to connect two existing bike paths, enhanced community space, restoration of a heritage area etc.)?	
16. Heritage Protecting Indigenous and non-Indigenous heritage and sites that are highly valued by the community.	
▪ Will this project affect heritage site or areas highly valued by the community? Are there any opportunities to enhance heritage?	
ECONOMIC	
17. Equity Share the benefits and costs of infrastructure development in a fair and equitable way.	
▪ Who will be disadvantaged or made vulnerable through this project? How is this being addressed?	
▪ How are the benefits shared equitably?	
18. Whole-of-life impacts Making decisions based on the whole-of-life impacts and benefits of a project.	
▪ How will the whole-of-life impacts and benefits be incorporated into the project's decision-making processes?	
19. Valuing externalities Putting a value on material externalities and incorporating them into the decision-making process.	
▪ What are the material externalities of this project? How will they be valued (including monetised and non-monetised values) in the decision making process?	

Adjust the Reference Project/s based the results of the sustainability assessment. This is particularly relevant 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 DBC's costing summary (Section 16).

CONTROL POINT 2

Before progressing the DBC 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 been completed?	Section	Yes	No
1	Strategic alignment to government programs and initiatives documented	8		
2	Impacts of policies, standards, legislation and regulation on Reference Project/s (or vice versa) documented	9		
3	Market considerations analysed and documented	10		
4	Community and stakeholder engagement approach documented	11.1		
5	The potential impact of the Reference Project/s on stakeholders documented	11.2		
6	Potential impacts of the Reference Project/s on the public interest (public access, equity, consumer rights, security, privacy) documented	11.3, 11.4, 11.5 & 11.6		
7	Sustainability assessment completed	12		
8	Benefits Register updated if required	Appendix 2		
9	Risk Register updated to include risk assessments for Sections 8 to 12	Appendix 3		
10	Stakeholder Engagement Plan updated if required	Appendix 4		
11	All assumptions and methodological issues for the assessments documented	8 to 12		
12	All sources underpinning the assessments included in the reference list	23		
#	Critical decision points	Section	Yes	No
1	Have any strategic, legal/regulatory, market or public interest considerations been identified which could result in the Reference Project/s not proceeding?	8 to 12		
2	Is the Reference project/s 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?	5.4		
3	Are any of the assessments impacted by optimism bias?	8 to 12		
4	Is the proposal subject to momentum bias?			

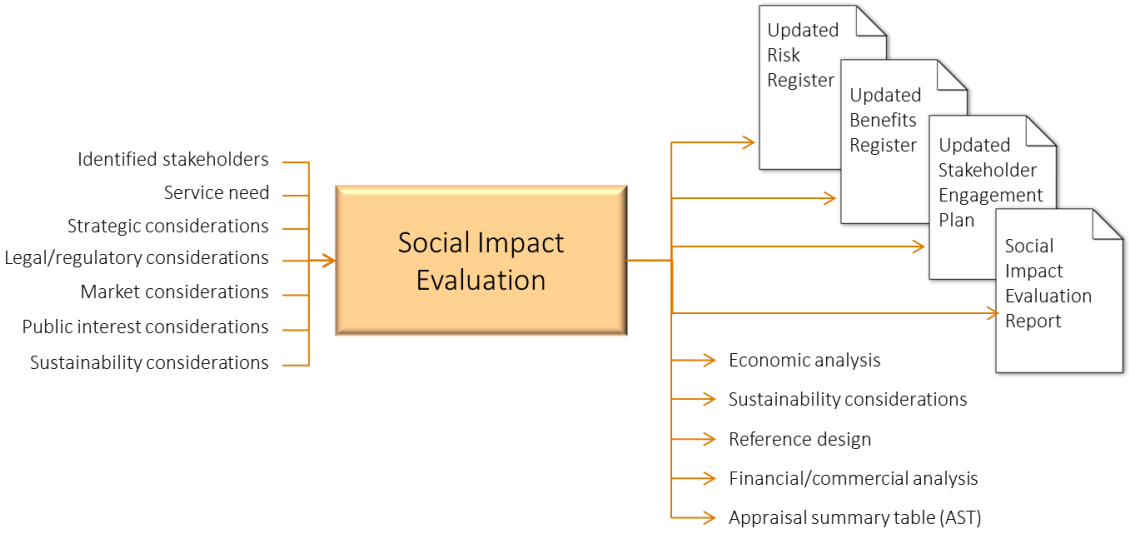
13. SOCIAL IMPACT EVALUATION

Documents the social impacts of the Reference Project/s. This ensures that social impacts arising from the Reference Project/s are clearly identified and accounted for in the decision making process. Social impacts for the Reference Project/s need to be identified and described in detail, then compared to the base case documented in Section 6.

The Social Impact Evaluation (SIE) is completed before the economic, environmental and financial analyses as it provides valuable input into those assessments. The lens through which the social impact evaluation is completed is, however, purely a social-impact view.

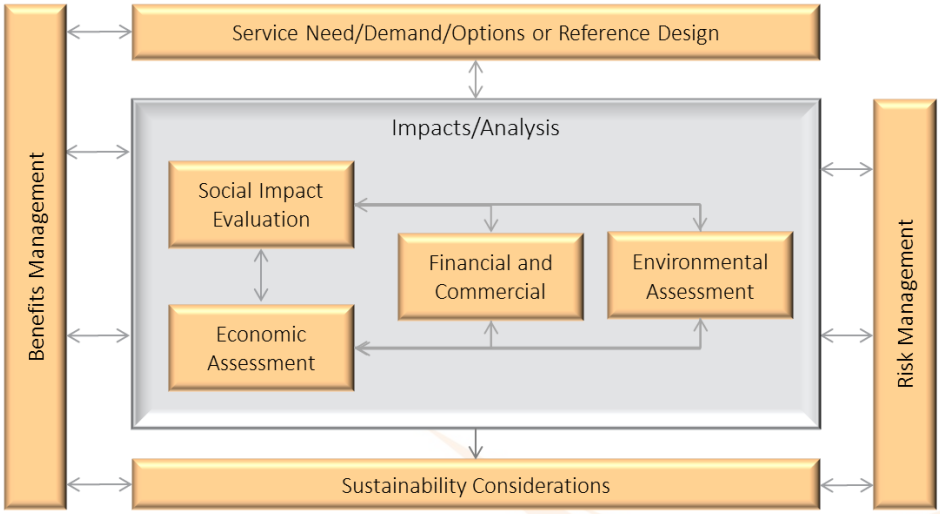
Figure 13 illustrates the inputs required to develop the Social Impact Evaluation section and the outputs that result from it.

Figure 13: 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 14. For example, the SIE can be updated in light of the economic and financial analyses.

Figure 14: Relationship between SIE and Other Elements of the Business Case



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

13.1. Approach

An SIE should be conducted for projects that do not have Social Impact Assessment (SIA) included as part of an Environmental Impact Assessment (EIA). 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 an explanation of why should be included in the Approach section of this chapter. It would also be useful to include a brief description of the steps required to quantify social impacts for future reference for the Business Case. 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 15). Further details on completing a Social Impact Evaluation (SIE) including impact risk assessments (IRA) can be found in the Building Queensland Social Impact Evaluation Guide and the Cost Benefit Analysis Guide.

Figure 15: The SIE Three-Step Process

Step 1a: Develop a Social Impact Baseline (SIB)	Step 2a: Identify likelihood and severity of social impacts	Step 3a: Identify metrics for quantifiable material social impacts
Step 1b: Identify and describe social impacts for Reference Project/s	Step 2b: Use the Impact Risk (IRA) to identify material social impacts	Step 3b: Complete the Appraisal Summary Table (AST)
Step 1c: Identify key drivers and assumptions	Step 2c: Apply mitigation or enhancement strategies to identified material impacts	Step 3c: Conduct sensitivity analysis.
Step 1d: Identify all social impacts that can be monetised for inclusion in the CBA. Identified social impacts should be incorporated into benefits management	Step 2d: Repeat IRA. Outputs from the IRA should be used to inform benefits and Risk Registers, and economic and financial analyses	Step 3d: SIE Reporting

13.2. Identify Social Impacts

Sources and approaches for identifying social impacts (benefits or costs) include:

- previous projects
- existing literature
- stakeholders (refer to Table 7 for an example of when stakeholders might be engaged in social impact evaluation)
- internationally accepted categories of social impacts

- categorisations of social impacts that can or cannot be monetised.

> Include any impacts raised in Sections 8 to 12.

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 7: Example Stakeholder Involvement in SIE

STAKEHOLDER INVOLVEMENT			
		Recommend Involvement	Could be involved
Plan	Establishing scope		✓
	Identifying stakeholders	✓	
	Decide how to involve stakeholders		✓
Develop analysis	Identifying SIB	✓	
	Identifying social impacts	✓	
	Clarifying social impacts	✓	
Data collection	Collecting social impact data		✓
	Establishing duration of social impact		✓
Conduct analysis	Impact risk assessment	✓	
	Assessing impact deadweight		✓
	Determine materiality of social impacts	✓	
	Establishing metrics for social impacts		✓
	Quantifying social impacts		✓
	Verify results of analysis	✓	
Results	Using the results	✓	

13.3. 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 8.

Table 8: 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 Reference Project/s by:

- determining whether each identified social impact can be quantified and monetised
- determining the appropriate evaluation approach for each social impact
- ensuring that all social impacts able to be monetised are incorporated into the CBA (Section 15)
- ensuring all social impacts that cannot be monetised undergo an Impact Risk Assessment (IRA) (Section 13.4).

13.4. Impact Risk Assessment

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

On completion of the IRA, develop strategies to address the predicted negative social impacts and enhance the potential positive impacts. Report an estimate of the remaining social impacts after implementation of these strategies.

The results of the SIE should be reflected in the overall risk assessment.

> 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.

13.5. Appraisal Summary Table

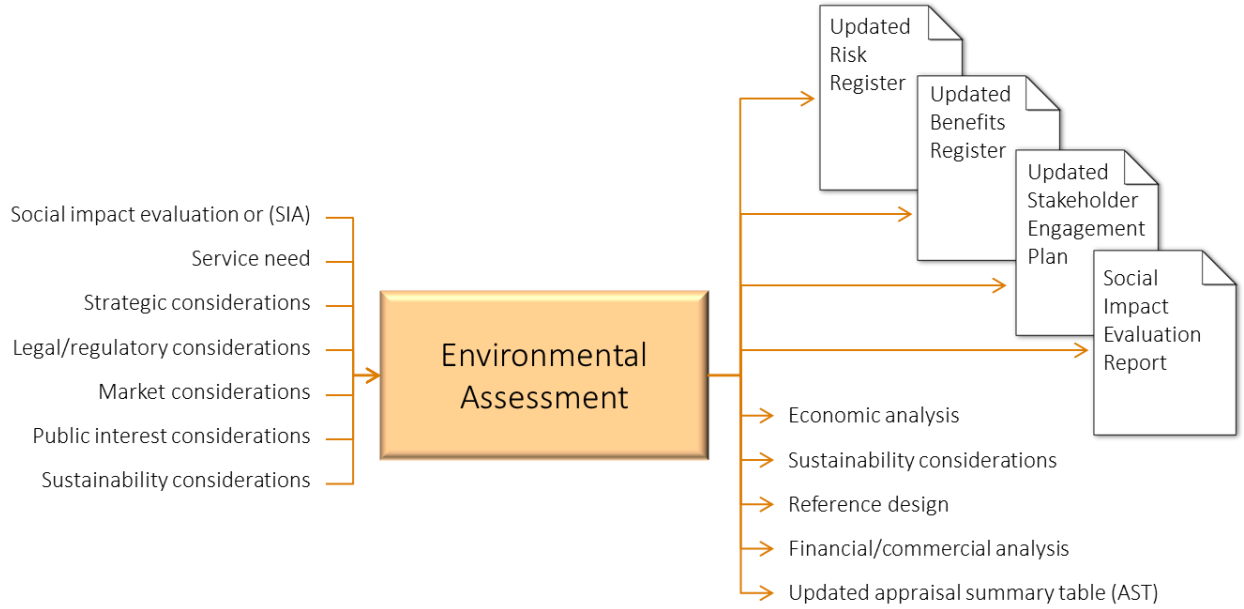
The social impacts identified in the IRA should be combined with the results of the CBA (Section 15.5) and the environmental assessment into an Appraisal Summary Table (AST). An AST is a summary of key consequences relating to the environmental, economic and social impacts of a project. It is used to help decision makers to compare the Reference Project/s to other projects competing for funding. The AST approach has been adopted from the UK Transport Analysis Guidance (2013).

14. ENVIRONMENTAL ASSESSMENT

Document the environmental impacts of the Reference Project/s, ensuring they are clearly identified and accounted for in the Reference Project/s design and decision-making process. In the PBC, the environmental impacts of all options were identified and described; the DBC assessment revisits and updates the work from the PBC, taking into account any relevant information obtained since the completion of the PBC. The lens through which this assessment is conducted is purely environmental.

Figure 16 illustrates the inputs required to develop the Environmental Assessment section and the outputs that result from it.

Figure 16: Inputs and Outputs to the Environmental Assessment Section



14.1. Approach

Environmental assessments:

- identify and review information from relevant previous studies
- identify all potential environmental issues and impacts
- assess how environmental issues may impact on the project options.

14.2. Identification of Environmental Impacts

Identify and categorise the relevant environmental considerations and impacts for the Reference Project/s. Table 9 outlines potential environmental considerations. Detailed analysis is undertaken during DBC development to expand the information on the Reference Project/s and identify (where possible) any issues that may impact project reference design and viability.

> In the environmental assessment, include any considerations raised in Sections 8 to 13.

Table 9: Identification of Environmental Impacts

ASPECT	CONSIDERATIONS
Legislation and Permit Requirements	▪ Identify and consider the impact of any legislative obligations and approvals required (in addition to those noted in Section 9) ▪ Perform high-level cost and time calculations for each requirement
Planning and Land Use	▪ Review current land uses ▪ Consider potential changes to land use during the construction and operational phases of the project (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	▪ Identify and describe any impacts to public and private property (if not already noted in Section 11)
Topography, Geology, and Soils	▪ Consider sediment and erosion-control management ▪ Identify relevant matters in the Environmental Management Register and Contaminated Land Register
Water Quality: consider both surface water and ground water	▪ Provide information on any existing management strategies as well as proposed infrastructure ▪ Describe strategies to manage existing or potential water quality issues
Hydrology	▪ Undertake high level hydrological and hydraulic investigation, analysis and assessment of any infrastructure options to assist in refining the design and providing input for the detailed planning and costing
Climate and Air Quality	▪ Potential impacts of climate and seasonal variations on design and project delivery ▪ Potential impacts and strategies for managing air quality issues during project delivery
Flora and Fauna	▪ Describe important flora and fauna (including aquatic flora and fauna if relevant) ▪ Identify strategies for habitat management ▪ Consider habitat connectivity ▪ Consider weed management implications ▪ Consider remnant vegetation management implications ▪ Consider storm water management implications
Climate Change and Emissions	▪ Consider and describe how the project will mitigate climate change by contributing to a reduction in global carbon emissions
Noise and Vibration	▪ 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	▪ 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	▪ A statement of places with known or potential historical significance ▪ strategies for managing any potential impact on cultural heritage
Waste Management	▪ Consider waste management during project delivery and operation

14.3. Environmental Assessment

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

Any remaining (or residual) environmental impacts must then be assessed; these can be divided into three assessment categories:

- impacts that can be quantified and monetised—include in CBA
- impacts that can be quantified and not monetised—include in SIE
- impacts that cannot be quantified nor monetised—include in SIE.

Table 10 illustrates the relationship between the environmental impacts and the approach taken.

Table 10: The Relationship Between Environmental Impacts and Approach

RELATIONSHIP BETWEEN ENVIRONMENTAL IMPACTS AND APPROACH			
	Quantified	Monetised	Approach
Environmental 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

Make note of any impacts on benefits or emerging dis-benefits and document any adjustments necessary to the Reference Project/s.

Update the Stakeholder Engagement Plan if necessary.

Update the Benefits Register and Risk Register if required.

15. ECONOMIC ANALYSIS

This section documents the economic analysis of the Reference Project/s. Economic analysis should take into account the work completed within the social impact evaluation, financial and commercial analysis, and environmental impact sections in terms of accounting for economic benefits and costs of the Reference Project/s. The lens through which this section is developed is however, purely economic.

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

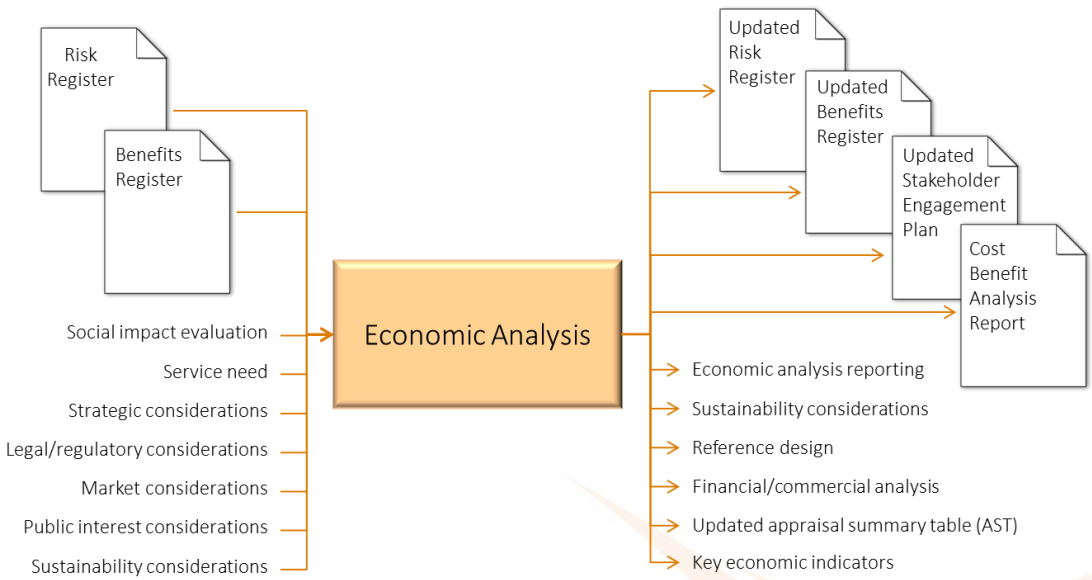
- the decision criteria for the Reference Project/s which are considered the minimum requirements for all projects
- principles and procedures to be applied to the economic analysis of the Reference Project/s.

Key requirements when completing an economic analysis 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.

Figure 17 illustrates the inputs required to develop the Economic Analysis section and the outputs that result from it.

Figure 17: Inputs and Outputs to the Economic Analysis Section



A CBA must be undertaken for all infrastructure projects with capital costs exceeding $50 million. This includes a social impact evaluation (Section 13), environmental assessment (Section 14), and sustainability assessment (Section 12).

15.1. 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 measureable.

Document the approach adopted for the economic analysis of the Reference Project/s. 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 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 high degree of certainty (P90) surrounding the estimate of benefits and costs is required for a DBC. A P90 project cost value is an estimate of the project cost based on a 90 per cent probability that the cost will not be exceeded. The level of reference design, including levels of contingency should also be documented. Within the detailed Business Case, both P50 and P90 levels should be reported. Risk adjust all benefits and costs (using the best estimate in the central case). Report Monte Carlo analysis summary results including key risks, modelling assumptions (including level of reference design) and FNPV distribution profiles including P50 and P90 values.

> Include any relevant considerations raised in Sections 8 to 14.

15.1.1. Quality Assurance Review

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.

15.2. Benefits

Identify positive and negative social impacts of the Reference Project/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.

15.3. Costs

Identify the economic costs of the Reference Project/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 for the Reference Project/s. This includes direct and indirect costs, and attributable overheads.

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. The inclusion of an attachment clearly outlining these costs, on a year-by-year basis will assist clarity.

15.4. Cost Benefit Analysis Results

Provide a summary of the value of incremental benefits and costs (NPV distribution profiles including P50 and P90 values) and the resulting NPV and BCR, along with a discussion of the results for the Reference Project/s. Table 11 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 11: Cost Benefit Analysis Results Template

COST BENEFIT ANALYSIS RESULTS (P90)			
Item	4%	7%	10%
Project Benefits			
Total Benefits			
Project Costs			
Total Costs			
Net Present Value			
Benefit Cost Ratio			

15.5. 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 level of probabilistic modelling (in terms of expected project outcomes) is routine in a DBC, 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.

Make note of any issues and document any adjustments necessary to the Reference Project/s.

Update the Stakeholder Engagement Plan if necessary.

Update the Benefits Register and Risk Register if required.

CONTROL POINT 3

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

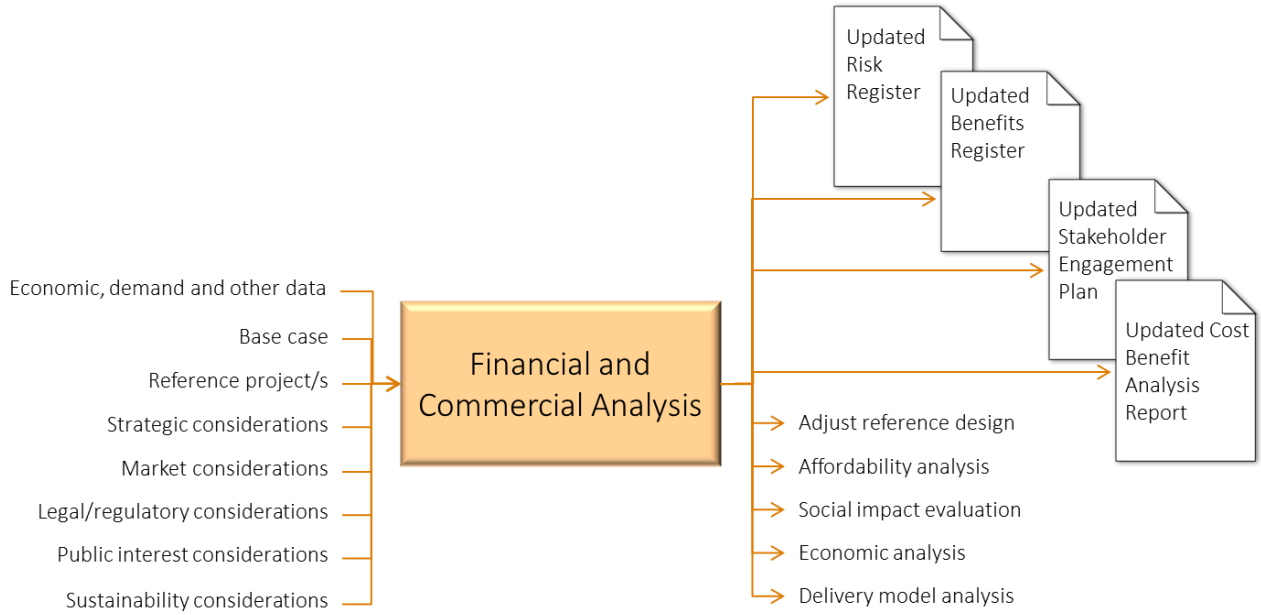
CONTROL POINT 3				
#	Have the following been completed?	Section	Yes	No
1	Social Impact Evaluation (SIE) completed	13		
2	Social impact risk assessment matrix included	13.4		
3	Appraisal Summary Table (AST) incorporating quantitative social impacts included	13.5		
4	Detailed environmental assessment completed	14		
5	Economic analysis (CBA) to a P90 level of confidence completed	15		
6	Summary table of the value of incremental benefits and costs (based on a P90 level) included	15.5		
7	P90 Net Present Value (NPV) documented	15.5		
8	Benefit Cost Ratio (BCR) documented	15.5		
9	Sensitivity testing of the CBA completed	15.6		
10	Summary table of the CBA sensitivity analysis results included	15.6		
11	Independent peer review of the economic analysis completed, including methodology, assumptions and outputs	15.7		
12	Summary of the findings of an independent peer review of the CBA included and how the findings have been addressed	15.7		
13	Benefits Register updated if required	Appendix 2		
14	Risk Register updated to include risk assessments for Sections 8 to 12	Appendix 3		
15	Stakeholder Engagement Plan updated if required	Appendix 4		
16	All assumptions and methodological issues for the assessments documented	13 to 15		
17	All sources underpinning the assessments included in the reference list	23		
#	Critical decision points	Section	Yes	No
1	Have any social, environmental or economic issues been identified which could result in the Reference Project/s not proceeding?	13 to 15		
2	Are any of the assessments impacted by optimism bias?	13 to 15		
3	Is the proposal subject to momentum bias?			

16. FINANCIAL AND COMMERCIAL ANALYSIS

This section outlines the financial implications and budgetary impacts. This is achieved by reviewing the pattern of related cash flows for the Reference Project/s. A financial analysis incorporating an analysis of cash flows should be carried out for the Reference Project/s regardless of scale, as an understanding and quantification of financial flows is critical to investment decision making.

Figure 18 illustrates the inputs required to develop the Financial and Commercial Analysis section and the outputs that result from it.

Figure 18: Inputs and Outputs to the Financial and Commercial Analysis Section



Financial analysis has a different purpose to the economic analysis; the financial analysis is focused on the financial costs (the net financial impact to government including cash flow implications) from an internal financing perspective; the economic analysis incorporates the outputs of the financial analysis but 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.

16.1. Approach

To conduct a financial analysis for the Reference Project/s:

1. Identify all revenues and costs (i.e. 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 an adjusted 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. Consider budgetary impacts, as well as potential government (local, state and federal) funding sources.

4. Identify and assess the project and ongoing risks that might create, enhance, prevent, degrade, accelerate or delay the achievement of the objectives and outcomes associated with the Reference Project/s.
5. Risk-adjust all revenues and costs. Report Monte Carlo analysis summary results including key risks, modelling assumptions (including level of reference design) and FNPV distribution profiles (including P50 and P90 values).
6. Conduct an independent peer review of all modelling assumptions, methodology and outputs.

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.

> Include any relevant considerations raised in Sections 8 to 15.

16.2. Financial Net Present Value

16.2.1. Approach

The unadjusted FNPV is the output of a financial model that projects the cash-flow profile (i.e. revenues and costs) generated from a Reference Project/s 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 the Reference Project/s.

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 (completed in Section 16.3).

Outline the approach undertaken to calculate an unadjusted FNPV including full documentation of:

- 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.

16.2.2. Capital Costs

Identify all capital costs in this section. 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 Reference Project/s. Costs should be based on the most accurate data available and should be as realistic as possible given the level of reference design (which should be reported). All real, nominal and PV capital costs should be summarised as outlined in Table 12.

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. For example, Australian Accounting Standards impose high-level criteria as to which costs can

be capitalised as assets rather than expensed. Queensland Treasury provides relevant guidance through the Non-Current Asset Policies.

Where costs can be capitalised as assets, consideration must still be given to 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 the Reference Project/s (refer to Table 12).

Table 12: Capital Costs Summary Template

CAPITAL COST TABLE			
Initial Capital Costs	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
Design			
Build			
Implement			
TOTAL			
Costs included above not eligible for capitalisation by Queensland Government			

Design, build and implementation capital costs should be summarised in a table, as outlined in Tables 13 to 15.

Table 13: Design Capital Costs Summary Template

DESIGN CAPITAL COSTS TABLE			
Design Costs	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
TOTAL			

Table 14: Build Capital Costs Summary Template

BUILD CAPITAL COSTS TABLE			
Build Costs	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
TOTAL			

Table 15: Implementation Capital Costs Summary Template

IMPLEMENTATION CAPITAL COSTS TABLE			
Implementation Costs	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
TOTAL			

16.2.3. Initial One-Off Operating Costs

Identify any one-off costs relating to the start up of the service. Examples include training costs, change management costs, relocation costs etc.

Table 16: One-Off Operating Costs Summary Template

ONE-OFF OPERATING COSTS TABLE			
Initial One-Off Operating Costs	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
Training			
Change Management			
Relocation			
TOTAL			

16.2.4. Ongoing Costs (Whole-of-Life)

Identify the whole-of-life costs for the asset in service. These costs determine the total cost over the life of the capital asset ,which underpin capital asset proposals. It is important that time is taken to ensure that all relevant costs are considered.

Table 17: Ongoing Costs Summary Template

ONGOING (WHOLE–OF-LIFE) COSTS TABLE			
Ongoing Whole-of-Life Costs	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
Operations			
Maintenance			
TOTAL			

Detail the estimated costs incurred in maintaining the capital asset over its useful life to the standard required to perform the function or service. This is not to be confused with renewal or refurbishment (refer to Table 20). Examples include performance management, consumables, repairs and associated labour costs.

Table 18: Operations Costs Summary Template

OPERATIONS COSTS TABLE			
Operations Costs	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
Utilities			
Labour			
Rental			
TOTAL			

Detail the estimated costs (excluding maintenance) of operating or leasing the capital asset. Examples include utilities, labour, rental costs, interest paid, taxes, contract costs and other overhead costs.

Table 19: Maintenance Costs Summary Template

MAINTENANCE COSTS			
Maintenance costs	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
Performance Management			
Consumables			
Repairs			
TOTAL			

Document any renewal and refurbishment costs. During the life of an asset a major renewal or refurbishment may be necessary to maintain the level of service required. This may involve an improvement or modernisation of the asset to extend its useful life.

It should be noted that this will be different to an upgrade to the asset, which would typically mean an increase in the level of service delivered.

Table 20: Renewal and Refurbishment Costs Summary Template

RENEWAL AND REFURBISHMENT COSTS TABLE			
Ongoing Whole-of-Life costs	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
Structural Repairs			
Major Plant Replacement			
Internal Installations			
TOTAL			

Document any upgrades to the asset and describe the nature of the upgrade. For example, this may include renewal activities or increases in capacity in line with expected growth.

Table 21: Upgrade Costs Summary Template

UPGRADE COSTS TABLE			
Ongoing costs	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
Operations			
Maintenance			
Renewals and Refurbishment			
TOTAL			

Consider any potential costs associated with selling or safe disposal of the capital asset at the end of its useful life. This may include remediation costs and any due diligence (if required).

Table 22: Disposal Costs Summary Template

DISPOSAL COSTS TABLE			
Disposal costs	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
Remediation			
Due Diligence			
TOTAL			

16.2.5. Residual Values

Document in PV terms any residual values of the infrastructure (and any other assets) at the conclusion of the period of analysis. The depreciation approach adopted in calculating residual value should be outlined.

Table 23: Residual Values Summary Template

RESIDUAL VALUES TABLE			
Residual value	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
Infrastructure			
Other Assets			
TOTAL			

16.2.6. Revenues

The financial analysis should also include estimates of any potential cash inflows to government. 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 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 (refer to Section 16.2.7).

If the Reference Project/s includes cash inflows, clearly documenting the basis of derivation (e.g. benchmarks) and major underlying assumptions including demand modelling and elasticities of demand (Table 24).

Table 24: Revenues Summary Template

REVENUES TABLE			
Revenues	Real ($ million, $ Year)	Nominal ($ million)	PV ($ million)
Operating Revenue			
Other Revenue			
TOTAL			

16.2.7. Value Capture

The opportunity for value capture to assist in funding projects must be explored in any Building Queensland DBC. Value capture involves the extraction of 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 have efficiency and equity advantages relative to government contributions in some circumstances. A value capture assessment undertaken as part of a DBC must adopt the following four step process:

1. identifying beneficiaries and benefits
2. estimating value uplift
3. identifying relevant value-capture mechanisms
4. evaluating 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.

16.2.8. Cost and Revenue Estimation Reviews

To support successful project outcomes, an independent peer review of the cost estimate should be undertaken to evaluate the soundness and appropriateness of the approach and results. A summary of the independent peer reviewer's findings should be included, particularly in relation to the adequacy of documentation, methodology, standards, assumptions, and results. A declaration of the peer reviewer's interest or conflict of interest should be included.

16.3. Risk-Adjusted Financial Net Present Value

Summarise the whole-of-life capital and operating costs and revenue in risk-adjusted NPV terms. 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 in the Monte Carlo analysis needs to be defined, documented and reported. The Monte Carlo analysis tool could also be used to help refine and identify key project risks.

16.3.1. 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. Quantification comprises the product of:

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

16.3.2. 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.

16.3.3. 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 P90 level of confidence.

Provide a summary table of the risk-adjusted whole-of-life capital and operating costs and revenue in NPV 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 FNPV distribution profiles including P50 and P90 values
- 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
- a summary of the key risks identified by the financial and Monte Carlo analysis, including the level of reference design.

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 P90 value is an estimate of the project revenue (or cost) based on a 90 per cent probability that the value will not be exceeded. P90 should be regarded as the minimum level of certainty achieved in the DBC.

Not all risks identified during a risk assessment will impact on project revenues or costs. Some risks may, however, have implications for wider social, environmental or economic impacts and must be considered in Sections 13 to 15.

16.3.4. 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 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 and which will be 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 though the risk analysis process.

An assessment of whether the public or private sector is best placed to manage these risks is 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 and those transferred to the private sector (Table 25).

Table 25: Template Risk Allocation Summary

RISK ALLOCATION		
Item	Total Risk (nominal $ million)	Total Risk as % of Raw Capex (%)
P90 Construction Risk		
Retained		
Transferred		
TOTAL		
P90 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.

Note any issues and document any adjustments necessary to the Reference Project/s.

Update the Stakeholder Engagement Plan if necessary.

Update the Risk Register if required.

16.4. Analysis Summary

Provide a summary of the whole-of-life risk-adjusted NPV. 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 4

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

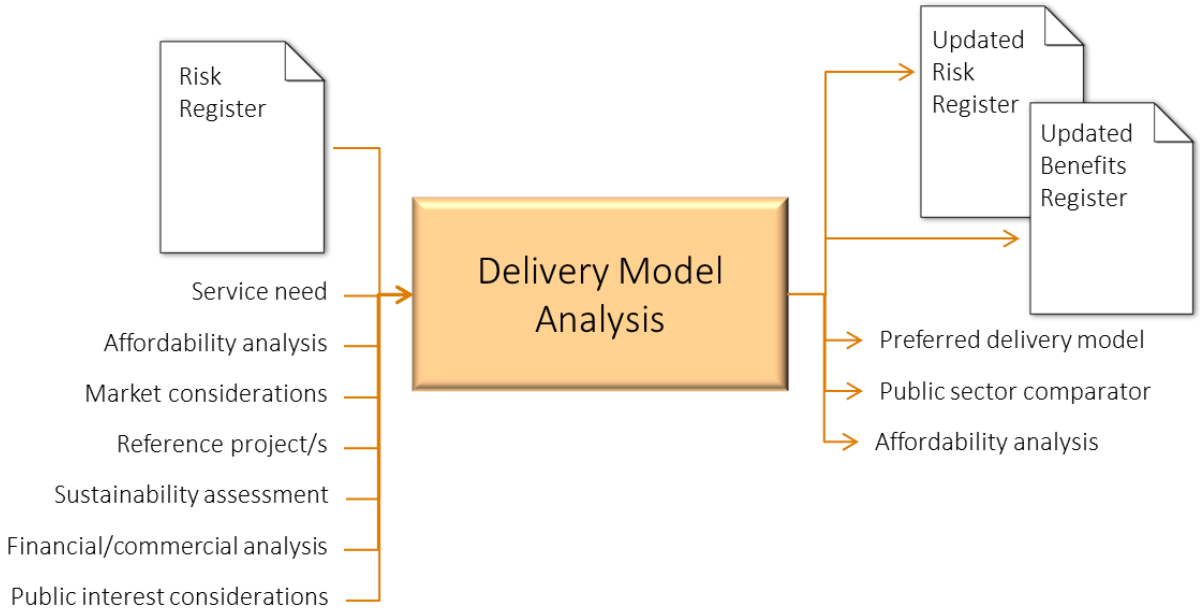
CONTROL POINT 4				
#	Have the following been completed?	Section	Yes	No
1	Budgetary impacts and potential government (local, state and federal) funding sources considered	16.1		
2	A financial model that projects the cash flow profile (revenues and costs) over its lifetime developed and documented	16.2		
3	Net cash-flow impact for each year over the project horizon documented	16.2		
4	A financial net present value (FNPV) for the project completed	16.2		
5	Value capture and user-charging assessment documented	16.2.7		
6	Independent peer review of the financial analysis	16.2.8		
7	Risks with financial cash flow consequences and/or wider project benefit and cost estimates identified and accounted for	16.3		
8	Risk allocated to the sector responsible and best able to manage the risk	16.3		
9	A Monte Carlo simulation (e.g. @Risk) on the financial cash flow to a P90 level of confidence completed and documented	16.3		
10	Risk-adjusted FNPV distribution profiles including P50 and P90 values completed	16.3		
11	Summary table of project revenues and costs reported in net present value (NPV) terms (including any necessary commentary)	16.4		
12	Summary table of the whole-of-life revenues and costs in outturn dollars included	16.4		
13	Summary of how each risk has been factored into a cost, revenue or benefit in the financial model included	16.4		
14	Benefits Register updated if required	Appendix 2		
15	Risk Register updated to include risk assessments for Sections 8 to 12.	Appendix 3		
16	Stakeholder Engagement Plan updated if required	Appendix 4		
17	All assumptions and methodological issues for assessments documented	16		
18	Any limitations to the assessments performed documented	16.2		
19	All sources underpinning the assessments included in the reference list	23		
#	Critical decision points	Section	Yes	No
1	Have any financial or commercial considerations been identified which could result in the Reference Project/s not proceeding?	16		
2	Are any of the financial assessments impacted by optimism bias?	16		
3	Is the proposal subject to momentum bias?			

17. DELIVERY MODEL ANALYSIS

This section documents the potential delivery models to procure and deliver the Reference Project/s. The objective of the analysis is to identify a delivery model that is likely to provide the best value for money in meeting the identified service need.

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

Figure 19: Inputs and Outputs to the Delivery Model Analysis Section



Where the Reference Project/s is recommended to be delivered as a PPP, analysis should follow the National PPP Policy and Queensland PPP supporting guidelines. Otherwise, the assessment approach detailed in this section should be followed.

17.1. Approach

Describe the methodology adopted for a traditional delivery model assessment for the Reference Project/s. Include documentation of:

- assumptions underlying the analysis
- project characteristics (i.e. objectives. scope, timelines, stakeholders, market capability and capacity)
- key project inputs to the analysis (i.e. costs, risks, market sounding, 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
- packaging and staging opportunities and scenarios
- project items not considered as part of the analysis
- criteria and measures for analysis, including the importance of the criteria
- evaluation and mitigation of risks.

Where staging options are being considered, identify and discuss what packaging options for various project items may drive opportunities for additional benefits and better value for money.

Undertake an assessment of packaging options against the evaluation criteria, taking into consideration relevant market sounding feedback and financial analysis (Section 10). Table 26 provides an example of a packaging template.

If a justification for government involvement has not previously been documented, it should be included in this section.

> Include any considerations raised in Sections 8 to 16.

Table 26: Packaging Assessment Template

PACKAGING ASSESSMENT				
Evaluation Criteria	Package Option 1	Package Option 2	Package Option 3	Package)ption 4
Criteria 1				
Criteria 2				
Criteria 3				

17.2. Traditional Delivery Model Assessment

Describe the delivery models considered for each package and project component/s (if applicable) and key considerations (i.e. precedent projects, risk allocation). Undertake an assessment against the evaluation criteria. Workshops maybe required to facilitate discussion and assessment.

Outline which traditional delivery models were assessed; these may include:

- design and construct
- design then construct
- design, construct and maintain
- design, construct, maintain and operate
- alliance
- competitive alliance
- early contractor involvement
- early tenderer involvement
- managing contractor.

Make note of any justification for government involvement. A summary of a traditional delivery model assessment is provided in Table 27.

Table 27: Traditional Delivery Model Assessment

TRADITIONAL DELIVERY MODEL ASSESSMENT		
Works Package	Component	Preferred Traditional Delivery Model
Package 1	Component 1	
	Component 2	
Package 2	Component 3	
	Component 4	
	Component 5	
Package 3	Component 6	

Describe the preferred traditional delivery model and rationale for selection and associated risks.

17.3. PPP Delivery Model Assessment

Where the Reference Project/s is recommended to be delivered as a PPP with private finance, report the outcomes of the assessment (including the preferred PPP delivery model) undertaken against the National PPP Policy and Queensland PPP supporting guidelines.

> Note any issues and document any adjustments necessary to the Reference Project/s.
>
> Update the Stakeholder Engagement Plan if necessary.
>
> Update the Risk Register if required.

18. PUBLIC SECTOR COMPARATOR

The Public Sector Comparator (PSC) is a financial model that estimates the risk-adjusted, whole-of-life cost of a project to the government using a traditional delivery method. The PSC represents the most likely and efficient form of public sector delivery of the Reference Project/s. The PSC also provides a benchmark against which decision makers can compare private sector bids for projects when delivered under a PPP delivery.

18.1. Approach

Describe the analysis methodology adopted for establishing the PSC for the Reference Project/s. The methodology must follow the National PPP Policy and supporting PAF guidelines where a PPP delivery model is preferred. The approach must document:

- assumptions underlying the analysis (i.e. duration, discount rate)
- key analysis inputs (i.e. costs in nominal and present value forms, risks, market sounding, financial analysis, delivery model and packaging)
- literature used to inform the assessment (e.g. current issues and case studies on delivery of similar projects in Queensland and elsewhere)
- packaging opportunities and scenarios

- project items not considered
- criteria and measures for analysis including the importance of the criteria
- evaluation and mitigation of risks.

18.2. Public Sector Comparator Assessment

The PSC is limited to those components that would be in the scope of services for the private sector to include in its tender response. Accordingly, the PSC provides a like-for-like comparison with potential private-sector bids. Additional costs which would be incurred by the state in procuring the Reference Project/s under a different delivery model are not included in the PSC. Tabulate items to be included in the PSC (as shown in Table 28).

Table 28: Summary of Items Included in the PSC Template

ITEM INCLUDED IN THE PSC	
Scope Item	**Included in the PSC**
Item 1	
Item 2	
Item 3	

Outline all key assumptions including:

- dates for project delivery
- escalation (capital and operations)
- discount rate
- cost assumptions
- design life.

Tabulate PSC costs (Table 29).

Table 29: Public Sector Comparator Costs Template

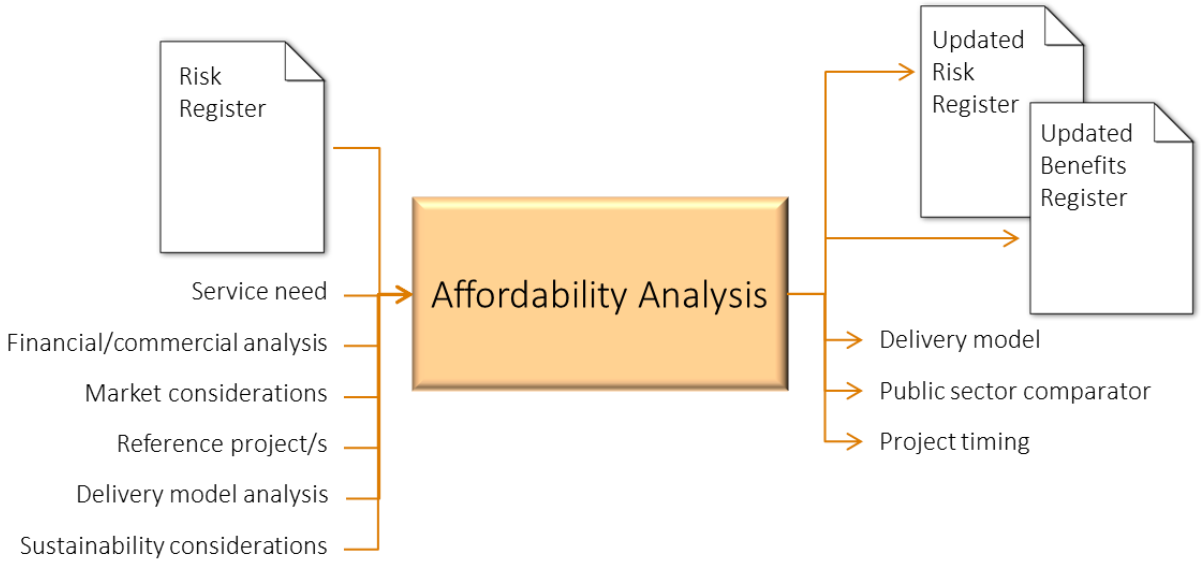
PSC COSTS	
Works Package	
Package 1	Component 1
	Component 2
Package 2	Component 3
	Component 4
	Component 5
Package 3	Component 6

19. AFFORDABILITY ANALYSIS

This section brings together the range of detailed discussion in preceding chapters of the DBC to outline affordability considerations for the Reference Project/s. This section presents all relevant information to allow decision makers to assess whether the Reference Project/s 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 20 illustrates the inputs required to develop the Affordability Analysis section and the outputs that result from it.

Figure 20: Inputs and Outputs to the Affordability Analysis Section



19.1. Approach

Project affordability is measured by the expected risk-adjusted finance net cost (both direct and indirect) to the state of delivering the Reference Project/s through traditional delivery.

Describe the assessment methodology for the affordability analysis.

> Include any considerations raised in Sections 8 to 18.

19.2. Affordability Assessment

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

> Note any issues and document any adjustments necessary to the Reference Project/s.
>
> Update the Stakeholder Engagement Plan if necessary.
>
> Update the Benefits Register and Risk Register if required.

CONTROL POINT 5

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

CONTROL POINT 5				
#	Have the following been completed?	Section	Yes	No
1	Methodology for the delivery model assessment documented	17.1		
2	Assessment of a range of potential delivery models (traditional and PPP) completed	17		
3	Assessment of packaging options completed and documented	17.1		
4	Summary of the outcomes of a value-for-money PPP Assessment included	17.3		
5	Public Sector Comparator completed if required	18.2		
6	Affordability of the project considered (taking into account all the previous analysis performed in the DBC)	19		
7	Outcomes of an affordability assessment documented	19.2		
8	Risk Register has been updated to include risk assessments from Sections 17, 18 and 19.	B (ii)		
9	Benefits Register updated if required	Appendix 2		
10	Risk Register updated to include risk assessments for Sections 8 to 12.	Appendix 3		
11	Stakeholder Engagement Plan updated if required	Appendix 4		
12	All assumptions and methodological issues for the assessments documented	17 to 19		
13	All sources underpinning the assessments included in the reference list	23		
#	Critical decision points	Section	Yes	No
1	Have any issues been identified which could result in the Reference Project/s not proceeding?	17 to 19		
2	Are any of the assessments impacted by optimism bias?	17 to 19		
3	Is the proposal subject to momentum bias?			

20. CONCLUSIONS

Summarise the service need (problem/opportunity), benefits sought, options analysis and Reference Project/s.

Discuss the Reference Project's affordability and value for money, taking into consideration the estimates of the project's benefits and costs, depth of technical investigations, sensitivity analysis, market sounding and recommended procurement strategy.

Where the Reference Project/s has been modified, undertake a review to ensure the benefits initially attributed to the investment continue to be achievable. This may impact the cost-benefit analysis or social-impact evaluation.

21. ASSURANCE

Prior to finalising the DBC a Gate 2 Assurance Review should be completed. Incorporate the results of the Gateway Review into the document, and note them in this section.

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

- 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.

Above all, the Business Case and in particular the economic and financial and commercial assessments should be independently assured.

22. IMPLEMENTATION PLAN

If the DBC recommends that a Reference Project/s progresses to procurement, an implementation project plan and resource plan for undertaking the next stage is required. Full examination of the requirements to implement the project should be included in a plan, in particular:

- governance
- project management
- procurement strategy
- resource requirements
- change management
- risk management
- benefits realisation
- cost estimate.

This material is to be detailed and should explain how implementation will be managed and delivered. Key points to raise include:

22.1. Governance

Describe the governance arrangements for procurement and implementation of the project including:

- document the roles and responsibilities to account for and report on project deliverables (identify the key project deliverables)
- document and outline how the governance arrangements are to be resourced from within the agency, the private sector or other agencies
- state whether assistance is being sought or is to be provided by a central agency or Building Queensland (because of the scale, risk and complexity of the project). For further information regarding engaging Building Queensland, refer to the Engaging Building Queensland documents.

22.2. Project Management Plan

Document the key project milestones. For each milestone, record the date and responsible person. Ensure that it is clear what is in scope and out of scope.

22.3. Procurement Strategy

Describe the procurement objective or what result is expected from the procurement including:

- the value for money from the procurement choice and the governance arrangements for managing the procurement (this should complement the description of governance arrangements identified above)
- the market characteristics (as this may influence the method of procurement or who to procure from)
- how the market is to be engaged (i.e. whether open tender, from a pre-qualified list of tenders etc.)
- an outline of the key steps and timing for developing and implementing the procurement method
- an outline of the cost of procurement and the key risks and management methods
- a realistic statement of the capacity and resources of the agency to manage the procurement process and manage the agency's responsibilities under the contract (may be included in the project plan).

22.4. Change Management

Describe the approach to managing organisational change throughout the project, including:

- the effect that implementation of the project proposal will have on existing services, processes and people
- how current business/work practices will be enhanced/improved and/or changed as a result of project implementation
- legislation, policy and regulatory issues
- the stakeholders who will be involved in the change management process—including the agency, a business unit within an agency, other agencies (where there are cross agency implications), service providers, users or recipients
- the change-management roles and responsibilities such as a change sponsor, change agents and the stakeholders that will need to change their work practices
- the communication strategies and plans to be developed

- the training tools, processes or work methods to be developed
- the mechanism to monitor and measure the effectiveness of the change-management process.

22.5. Resource Requirements

Outline the required skills and capabilities for this project proposal, including:

- what resources are necessary to implement this project and realise the benefits of the project
- whether the necessary resources are available (taking into account the agency's current commitments and capacity to deliver)
- the training requirements and how the requirements will be addressed (where applicable).

22.6. Benefits Realisation

Describe the benefit realisation methodology to be adopted by developing a plan that:

- describes the benefit to be achieved
- describes the contribution to agency service delivery
- identifies the person responsible for implementation
- describes what will be managed and measured during implementation to ensure the objectives and/or benefits are achieved
- tracks whether the project is being implemented in a way that give assurance the benefits will be achieved (including a set of measurable KPIs that have a results logic to the post-implementation benefits)
- identifies the performance measure or service level before and after the service change
- identifies target date/s for the objectives and/or benefit to be implemented or realised
- develops benefits profiles.

23. RECOMMENDATIONS

This section:

- summarises the Reference Project/s which has been identified to progress to procurement, and indicates the basis justifying that the project proceed
- summarises the recommended delivery option for the project
- finalises Benefits and Risks Registers and make note of any possible future risk and benefits actions/activities.

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

- seeks approval for the Implementation Plan (and associated documents)
- highlights significant issues or risks for decision makers (if appropriate)
- includes recommendations regarding optimal timing considerations.

Where the outcome of the DBC 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.

24. REFERENCES

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

CONTROL POINT 6

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 6				
#	Have the following been completed?	Section	Yes	No
1	Concluding statement documented	20		
2	Detailed implementation plan prepared	22		
3	Recommendations made, including: ▪ whether the Reference Project/s should progress to procurement ▪ the preferred delivery model Recommendations accompanied by: ▪ a request for approval of the implementation plan ▪ documentation of any significant issues or risks for decision makers	23		
4	Executive Summary included	1		
5	Benefits Register updated if required	Appendix 2		
6	Risk Register updated to include risk assessments for Sections 8 to 12	Appendix 3		
7	Stakeholder Engagement Plan updated if required	Appendix 4		
8	Assumptions and methodological issues for the assessments documented	3		
9	All sources underpinning the assessments are included in the reference list	23		
10	Review the finalised DBC to assess if it: ▪ is complete ▪ the information is reliable and reasonable ▪ is transparent ▪ clearly documents ownership ▪ assessments and documentation enables the Business Case to be compared to others.	21		
#	Critical decision points	Section	Yes	No
1	Has the refinement of the Reference Project/s during DBC 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 since the PBC was finalised to the general environment, underpinning demand data or the implementation of other programs/initiatives?	5.4		
3	Is the proposal subject to momentum bias?			
4	Does the Reference Project/s demonstrate net economic benefit?			

APPENDIX 1: DETAILED 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 Selection Approach

4. PROPOSAL BACKGROUND

5. SERVICE NEED

- 5.1 Current State
- 5.2 Stakeholders
- 5.3 Benefits Sought
- 5.4 Preliminary Business Case Options
- 5.5 Recommended Option/s (Reference Project/s)

6. BASE CASE

7. REFERENCE PROJECT/S

- 7.1 Objectives, Outcomes and Benefits
- 7.2 Scope
- 7.3 Activities
- 7.4 Stakeholders
- 7.5 Implications of Not Proceeding

APPENDIX 2: BENEFITS REGISTER

Benefits identified during DBC development should be captured in a Benefits Register. The Benefits Register should include:

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

At DBC stage, the Benefits Register is used to ensure that options address the benefits sought and to enable stakeholders' needs to be incorporated in Reference Project/s design. The Benefits Register in the DBC will include information gathered (and retained) during the development of the SBC and PBC as well as the suggested category of the benefit, dependences, risks and other considerations relevant to 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

APPENDIX 3: RISK REGISTER

While developing a DBC, risks should be captured in a Risk Register. The Risk Register should, at a minimum, include:

- risk description
- trigger
- impact
- rating for likelihood and consequence
- overall risk rating
- control strategy.

At DBC stage, the Risk Register is used to shape the Reference Project/s and inform any implementation plan.

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: STAKEHOLDER ENGAGEMENT PLAN

A Stakeholder Engagement Plan (SEP) includes the stakeholders relevant to the service need and who must be considered during DBC development. The SEP documents the methods and frequency with which stakeholders will be engaged. Approval is required for all stakeholder engagement activities prior to implementation. The SEP is a living document and will be adjusted throughout the DBC development.

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

The SEP should include:

- stakeholder name/description
- extent of stakeholder interest and influence in the 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

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