



Hughenden DBC
Risk Management Plan and Register

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HIPCo



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Author: Chris Hewitt
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1A	8 January 2021	Draft Risk Register	Chris Hewitt	Matt Bradbury	John Moore
1B	8 March 2022	Risk Register – response to HIPCo's comments	Chris Hewitt	Matt Bradbury	John Moore

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1. Structure and Methodology

1.1 Purpose

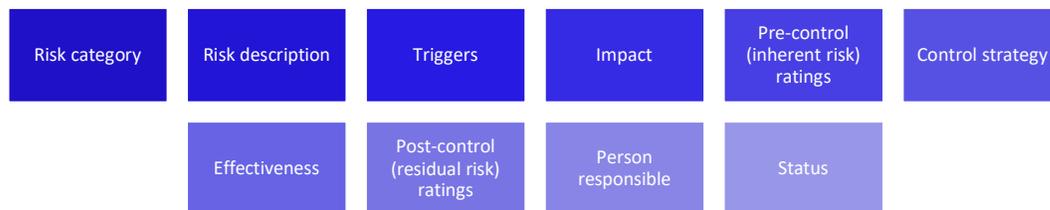
This Risk Management Plan and Risk Register has been prepared as part of the Hughenden detailed business case (DBC). The register has been developed at the commencement of the detailed business case and will be maintained and updated throughout the business case process. The final form of the risk register will be included in the final detailed business case.

The detailed business case risk management approach is aligned with the BQ framework (2020) and the relevant Australian Standard AS/NZS ISO 31000:2009 Risk Management—Principles and Guidelines. The risk analysis and scoring matrix approach that was adopted has drawn upon the Queensland Department of Regional Development, Manufacturing and Water (DRDMW) risk management process. This risk management process has been used and tested in various water infrastructure projects in Queensland.

The purpose of the risk register is to document the risks identified and managed through the risk management process. The detailed risk management methodology for the detailed business case will be outlined in the final detailed business case.

1.2 Details recorded in the Risk Register

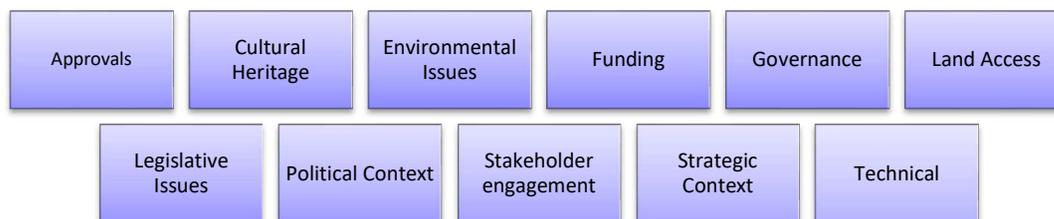
This section provides details on the terms used in the risk register. The Risk Register contains the following columns:



The function and operation of each of these columns is outlined below.

1.2.1 Risk category

The potential risks are grouped under the following Eleven (11) risk categories that broadly cover the Four (4) risk categories (proposal risks, methodical risks, process risks and project risks) as identified in the BQ’s Detailed Business Case Framework (2020):



1.2.2 Risk description

A short description of the risk.

1.2.3 Triggers

Events which could cause the risk to occur and become known.

1.2.4 Impact

The effect of the risk if it occurs.

1.2.5 Risk level: pre-control (inherent risk) ratings

- **Likelihood:** The likelihood of the risk occurring if it is not effectively managed. The description of risk likelihood was applied across the DBC risk assessment. The range from yearly to every 100 years is appropriate for water infrastructure related risks. Explains the likelihood terms.

Table 1: DRDMW risk likelihood terms explained

Likelihood	Number in Risk Register	Description	Example to assist stakeholders
Almost certain	1	The event is expected to occur in most circumstances	May occur once a year or more
Likely	2	The event will probably occur in many circumstances	May occur once every 3 years
Possible	3	Identified factors indicate the event could occur at some time	May occur once every 10 years
Unlikely	4	The event could occur at some time but is not expected	May occur once every 30 years
Rare	5	The event may occur only in exceptional circumstances	May occur once every 100 years

- **Consequence:** The consequence of the risk if it occurs and if it is not effectively managed. Table 2 explains how to interpret consequences for: (a) delivery of the business case; and (b) realisation of potential project benefits.

Table 2: DRDMW risk consequences - Impact on Business Case Delivery and Realisation of Benefits

Consequence	Insignificant	Minor	Moderate	Major	Catastrophic
Letter in Risk Register	E	D	C	B	A
Impact on delivery of this business case	Negligible impact on effective delivery of business case	Minor impact on effective delivery of business case	Moderate impact on effective delivery of business case	Major impact on effective delivery of business case	Catastrophic impact on effective delivery of business case—cannot be done
Impact on realisation of project or option benefits	Negligible impact on realisation of project benefits	Minor impact on realisation of project benefits	Moderate impact on realisation of project benefits	Major impact on realisation of project benefits	Catastrophic impact on realisation of project benefits—cannot be realised

- **Inherent risk rating:** The rating of the risk before it is effectively managed. The risk rating depends on both the likelihood and consequence of the risk. The DRDMW Risk Analysis and Scoring Matrix was applied to each identified risk

Table 3: DRDMW Risk Analysis and Scoring Matrix

Likelihood / Consequence	Insignificant (E)	Minor (D)	Moderate (C)	Major (B)	Catastrophic (A)
Almost certain (1)	Medium (11)	Medium (16)	High (20)	Extreme (23)	Extreme (25)
Likely / Probable (2)	Low (7)	Medium (12)	High (17)	High (21)	Extreme (24)
Possible (3)	Low (4)	Medium (8)	Medium (13)	High (18)	High (22)
Unlikely (4)	Low (2)	Low (5)	Medium (9)	Medium (14)	High (19)
Rare / Very Unlikely (5)	Low (1)	Low (3)	Low (6)	Medium (10)	Medium (15)

1.2.6 Control strategy

The method employed to control the risk. After assessment of project risk, mitigations were identified. Risk mitigation measures include the following noting a preference for higher order hierarchy of controls where feasible:

- tolerate the risk
- avoid the risk
- share the risk
- reduce or control the likelihood of the risk
- reduce or control the consequences of the risk.

1.2.7 Risk Tolerance

After mitigation, if some residual risk remains as High or extreme risks after all practical mitigation measures had been applied then these risks will be subject to further analysis to look at other practical and feasible means to reduce the risk. In any event risks with high residuals will be regularly monitored, and additional mitigation strategies will be assessed. Where suitable, a description of the planned mitigation activities is provided in the risk register.

1.2.8 Effectiveness

The effectiveness of the control strategy in managing and mitigation the risk:

- Adequate
- Marginal
- Inadequate
- Currently unknown (this is used when mitigation activities are still be identified and cannot be reasonably assessed for effectiveness at this stage). However, if the likelihood and consequence of the risk is unable to be tolerated separate processes will undertaken to ensure risks are managed as far as reasonably practical

1.2.9 Risk level: post-control (residual risk) ratings

The risk rating after the control strategy:

- Likelihood: The likelihood of the risk occurring after it has been effectively managed.
- Consequence: The consequence of the risk after it has been effectively managed.

- Residual risk rating: The rating of the risk after it has been effectively managed.

1.2.10 Person responsible

Person/s responsible to manage the risk.

1.2.11 Status

Current status of risk – in progress, monitoring, completed, not actioned.