

Pukekohe

Appendix K: Risk Register

Version 1.0

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Disclaimer

This is a draft document for review by specified persons at Auckland Transport and the New Zealand Transport Agency. This draft will subsequently be updated following consideration of the comments from the persons at Auckland Transport and the New Zealand Transport Agency. This document is therefore still in a draft form and is subject to change. The document should not be disclosed in response to requests under the Official Information Act 1982 or Local Government Official Information and Meetings Act 1987 without seeking legal advice.

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Acronym/Term	Description
AC	Auckland Council
AT	Auckland Transport
BCR	Benefit-cost Ratio
Class A, B, C & D	Risk score class after evaluation of likelihood x consequence. Refer to Tables 3 & 4 below for further detail.
DBC	Detailed Business Case
GPS	Government Policy Statement on Land Transport 2021
IBC	Indicative Business Case
IQA	Internal Quality Audit
MCA	Multi Criteria Analysis
NoR	Notice of Requirement
OAG	Office of the Auditor General of New Zealand
OIM	Owner Interface Manager
PAB	Programme Alliance Board
Partners	AT, Waka Kotahi NZ Transport Agency, Auckland Council and Manawhenua
RC	Resource Consents
Risk	An uncertain event that may have a positive or negative influence on the ability to achieve objectives
RMA	Resource Management Act
RTN	Rapid Transit Network
SME	Subject Matter Expert
SGA	Te Tupu Ngātahi Supporting Growth Alliance
SM014	Waka Kotahi's Cost Estimation Manual SM014
SSBC	Single Stage Business Case
WK	Waka Kotahi NZ Transport Agency

1 Risk Management Process

1.1 Introduction

Risk management has been undertaken throughout the development of this Pukekohe Detailed Business Case (DBC) in accordance with the Te Tupu Ngātahi Supporting Growth Alliance's (SGA's) 'Risk and Opportunity Management Plan' which comprises of the following stages:

- Risk (threat and opportunity) identification – relative to context.
- Risk analysis – likelihood and consequences based upon current control measures.
- Risk evaluation – scoring of the risk to determine it's relative magnitude.
- Risk treatment – to eliminate or reduce the consequences or likelihood of the risk occurring.

Section 1 of this Risk Register outlines the process that has been followed in each of these stages. Section 2 summarises the key Programme-wide risks and Section 3 identifies Project-specific risks to be considered during future work.

1.2 Identification

Threat and opportunity identification has been a continuing process throughout the development of the DBC and has included the following:

- Initial risk workshops to identify threat and opportunities at the start of the DBC.
- Regular identification (and update) at Pukekohe team meetings based upon the DBC's development and subsequent feedback from the team and partners/stakeholders.
- Ad-hoc emails/conversations with team members.

Identified programme risks were captured within the Pukekohe DBC SharePoint risk register, Risk Owner assigned and subsequent analysis undertaken (as detailed below).

1.3 Analysis

The likelihood of occurrence and consequence of the risks have been analysed using the criteria identified in Tables 1 and 2 below based upon the current control measures.

Table 1: Likelihood Risk or Opportunity Rating

Likelihood Risk or Opportunity Rating		Likelihood of Risk or Opportunity Occurring	%
5	HIGHLY LIKELY	May occur in next 12 Months	> 85
4	LIKELY	May occur in the next >1 to 2 years	55 – 85
3	POSSIBLE	May occur in next >2 to 6 years	30 – 55
2	UNLIKELY	May occur once in >6 to 10 years	5 – 30
1	RARE	May occur once in 10 years	< 5

Table 2: Semi-Quantitative Threat Criteria

Semi-Quantitative Threat Criteria							
Rating Scale	Reputation			Performance			
	Stakeholders	Public / Media	Legal / Compliance	Project Delivery	Project Cost	Health & Safety	Environmental
Severe	Disruption to stakeholder relationship slowing progression of nationally strategic activity, and/or Loss of route availability of a national strategic high-volume highway	Sustained national and/or international media coverage AT/Waka Kotahi NZ Transport Agency and the PAB do not envisage any exposure in reputational risks at this level	High profile prosecution(s) with potential for custodial sentence	Programme slippage resulting in late delivery by more than 180 days	Negative financial impact of more than \$25M	Loss of life, permanent disability or injury, or multiple serious injuries	Permanent pollution damage or other environmental damage
Major	Disruption to stakeholder relationship slowing progression of regionally strategic activity, and/or Loss of route availability of a national strategic highway	Sustained media coverage (weeks) Possible Ministerial inquiry leading to loss of Ministerial confidence/formal enquiry by OAG or statutory agency Widespread and significant community concern and/or high-profile community concerns raised	Individual prosecution Potential prosecution with maximum fine / imprisonment High profile legal challenge or prosecution with heavy fines	Programme slippage resulting in late delivery by between 90 and 180 days	Negative financial impact between \$10M to \$25M	Serious injury (injuries) requiring specialist medical treatment or lost time greater than three weeks	Significant and widespread pollution or other environmental damage, with long term effects
Moderate	Disruption to stakeholder relationship slowing progression of regional activity, and/or Loss of route availability of a regional strategic highway	Short term (days) media coverage Parliamentary/Ministerial questions or 3rd party investigation Community complaints	Breach with legal rebuke / abatement notice/restrictions Some legal constraints imposed, minimal fines	Programme slippage resulting in late delivery by between 30 and 90 days	Negative financial impact between \$2M to \$10M	Injury requiring medical treatment or lost time of one day to three weeks	Pollution or other environmental damage at a localised level, with medium term effects
Minor	Disruption to stakeholder relationship slowing progression of site-specific activity, and/or Loss of route availability of a regional connector highway	Local media coverage for 1-5 days Official information request. Negative feedback from Minister Reputation within industry is damaged Some community complaints Marginal impact on stakeholder confidence	Breach with letter from authority requesting action	Programme slippage resulting in late delivery by between 7 and 30 days	Negative financial impact between \$0.5M to \$2M	Injury requiring short term medical treatment and workplace absence less than one day	Minimum pollution or other environmental damage. Short term effects only
Insignificant	Disruption to stakeholder relationship, and/or Loss of route availability of a regional distributor highway	Local media coverage for 1-day Reputation intact Internal knowledge only Minimal impact on stakeholder confidence	Breach managed at a regional level	Programme slippage resulting in late delivery by less than 7 days	Negative financial impact of less than \$0.5M	Injury requiring short-term first-aid care and no absence from the workplace	Small scale pollution or other environmental damage is localised with no resultant effects. Contained locally

1.4 Evaluation

Based upon the likelihood and consequence outcomes from the risk analysis, the risks have been evaluated using the Tables 3 & 4 below to identify their Class from A to E. The significance of a Class A threat is 'very high' compared to Class E which is considered 'very low'. Likewise, for opportunities.

Table 3: Threat Rating Matrix

RISK RATINGS LIKELIHOOD x CONSEQUENCE						
Likelihood	5 Highly Likely (May occur this year) >85%	Class B (5)	Class B (10)	Class A (15)	Class A (20)	Class A (25)
	4 Likely (May occur once in the next 2 years) 55-85%	Class C (4)	Class C (8)	Class B (12)	Class A (16)	Class A (20)
	3 Possible (May occur once in the next 2-5 years) 30-55%	Class D (3)	Class C (6)	Class C (9)	Class B (12)	Class A (15)
	2 Unlikely (May occur once in 5-20 years) 5-30%	Class D (2)	Class D (4)	Class D (6)	Class C (8)	Class C (10)
	1 Rare (May occur once in 20 years) <5%	Class E (1)	Class E (2)	Class E (3)	Class D (4)	Class C (5)
		1 Insignificant	2 Minor	3 Moderate	4 Major	5 Severe
		Consequence				

Table 4: Opportunity Rating Matrix

Likelihood	5 Highly Likely (May occur this year) >85%	Critical Opportunity (25)	Critical Opportunity (20)	High Opportunity (15)	Medium Opportunity (10)	Low Opportunity (5)
	4 Likely (May occur once in the next 2 years) 55-85%	Critical Opportunity (20)	Critical Opportunity (16)	High Opportunity (12)	Medium Opportunity (8)	Low Opportunity (4)
	3 Possible (May occur once in the next 2-5 years) 30-55%	Critical Opportunity (15)	High Opportunity (12)	Medium Opportunity (9)	Medium Opportunity (6)	Low Opportunity (3)
	2 Unlikely (May occur once in 5-20 years) 5-30%	High Opportunity (10)	Medium Opportunity (8)	Medium Opportunity (6)	Low Opportunity (4)	Low Opportunity (2)
	1 Rare (May occur once in 20 years) <5%	High Opportunity (5)	Low Opportunity (4)	Low Opportunity (3)	Low Opportunity (2)	Low Opportunity (1)
		5 Severe	4 Major	3 Moderate	2 Minor	1 Insignificant
		Consequence				

1.5 Treatment

Risk Owners were responsible for identifying and then undertaking 'planned risk treatment' actions appropriate to the risk score identified during the evaluation. These actions were reviewed by the project team and risks were also closed once further investigation into the risk found that the initial threat or opportunity was no longer a consideration.





