

# FINAL ASSESSMENT DESIGN REPORT

A technical paper prepared for the Investment Decision-Making Framework Review

3 JUNE 2020

Waka Kotahi NZ Transport Agency has developed tools to assist with assessment at each stage of business case development. These tools are aligned with the Waka Kotahi benefits framework.

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# DOCUMENT PURPOSE

The purpose of this document is to outline the business case assessment design changes.

## BACKGROUND

The Government Policy Statement on Land Transport (GPS) 2018 states: 'Cost benefit analysis should take account of the full range of costs and benefits. Evaluation tools therefore need to transparently and robustly capture and assess these benefits and costs.' Assessment tools have been developed to ensure the effect is given to the GPS and to investment decisions are rigorous and transparent.

### Alignment across the transport system

The Ministry of Transport (MoT) and Waka Kotahi worked together to develop a new framework that is consistent at both a sector and operational level. Local government investment partners were also instrumental in the design of assessment tools. The benefit of joined-up thinking will be that approaches, processes, tools and methodologies are developed to form a consistent whole-of-sector approach.

### The National Land Transport Programme

The National Land Transport Programme (NLTP) reflects the partnership between local government – which invests local funding – and Waka Kotahi, which invests national funding on behalf of government through the National Land Transport Fund (NLTF). The NLTP sets out how Waka Kotahi will use national land transport funding for the next three years and a high-level forecast of revenue and expenditure for the next 10 years.

In preparing the NLTP Waka Kotahi must give effect to the GPS and take into account regional land transport plans (RLTPs). RLTPs set out each region's land transport objectives, policies and measures, and transport priorities. They also include activities that have been proposed for inclusion in the NLTP. Activities must be included in an RLTP to be eligible for funding from the NLTF.

Activities proposed for inclusion in the NLTP are prioritised using the investment prioritisation method. An investment threshold is set for each activity class based on available funds, so that it is clear which activities are included in the NLTP based on their priority order.

Following inclusion in the NLTP, Waka Kotahi assesses each business case when making an investment decision for the proceeding phase of the activity. Assessment includes a check of the quality of the business case and a check against investment criteria. The activity's priority is also reviewed against the prioritisation criteria (including alignment with GPS priorities) to ensure that the priority order remains above the threshold and funding continues to be available.

To ensure that value for money is delivered, business cases need to transparently demonstrate:

- return on investment – expected benefits compared with expected cost
- contribution toward the desired GPS results.

Waka Kotahi must document the reason for a decision, especially where there is a benefit–cost ratio lower than would normally be required for inclusion in the NLTP.

### Assessment versus prioritisation

Prioritisation of an activity for inclusion in the NLTP is based on available information about an activity that exists prior to an investment decision on a business case. Prioritisation of activities involves a coarse comparison of activities in an activity class across New Zealand.

The assessment tools outlined in this paper assist with assessing alternatives and options in a business case. Assessment is intended to identify all significant benefits which are relevant to a proposal.

The priority order of an activity is confirmed based upon updated information on costs and benefits as assessed in the business case. Assessment and prioritisation rely on the identification of benefits, as outlined in the benefits framework.

# BENEFITS MANAGEMENT AND THE BENEFITS FRAMEWORK

## Benefits management

Benefits management underpins the Business Case Approach and investment decisions. The process of benefits management is a practice of benefits identification, analysis, planning, and realisation and reporting of benefits consists of ex-ante and ex-post evaluations. Well-evidenced and robust intervention logic needs to be applied through all stages of benefits management. The aim of benefits management is to:

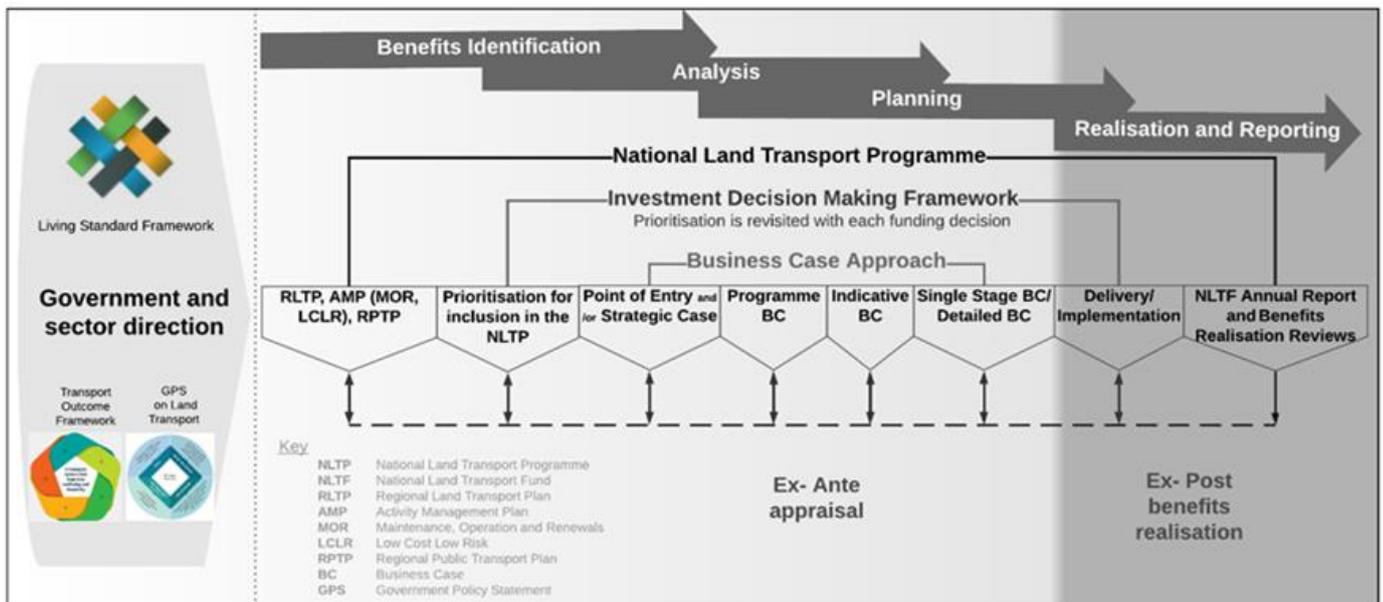
- demonstrate an investment’s contribution to outcomes
- ensure benefits are realistic, achievable, and ultimately realised
- ensure value for money
- track the realisation of benefits following implementation
- embed lessons learned in order to continually improve.

Benefit identification is common in both appraisal and benefits realisation. It seeks to identify and define potential benefits and/or disbenefits arising from addressing an identified problem or opportunity.

Benefits are identified and clarified throughout the development of a business case, starting with the identification of problems and the benefits of addressing those problems. A new benefits framework is introduced in Figure 1 that reflects the entire life of benefits through the investment cycle.

Current processes require the capture of benefit information to complete a cost–benefit analysis for funding purposes. The *Economic evaluation manual* (EEM) provides detail of how to complete this benefit assessment, which focuses on monetary outputs. Previously, the EEM was the Waka Kotahi technical guidance for undertaking social cost–benefit analysis for transport investment. The EEM was focused on monetising benefits and its primary function was to provide consistency, transparency and comparability between the economic efficiency of multiple activities. The new benefits management framework seeks to measure investment outcomes and help determine whether expected benefits are realised.

Figure 1: Waka Kotahi benefits management framework



## Benefits framework

Waka Kotahi has developed a common benefits framework for use across the entire benefits management process. These benefits are mode neutral and aligned to the enduring Ministry of Transport’s Transport Outcome Framework (MoT TOF). High level benefit clusters have been developed to demonstrate meaningful alignment between the new mode neutral benefits and the MoT TOF.

In summary, the new benefits framework:

- is aligned with the enduring outcomes in the MoT TOF
- is used in all stages of benefit management, including benefits identification, option appraisal, business case assessment, reporting on benefits and benefits realisation post-implementation
- includes monetised, quantitative and qualitative benefits
- captures benefits to people, society and the environment rather than functioning as benefit indicators
- is mode neutral.

One of the key shifts through the Investment Decision-Making Framework Review is to better consider non-monetised benefits and costs within decision-making – ie decision-makers will be presented with qualitative, quantitative and monetised benefits and costs to inform investment decisions. This will put us in line with international best practice. The benefits framework will underpin the new approach by providing monetised and quantitative measures.

The EEM will be renamed as the *Monetised benefits and costs manual*. This manual includes guidance, methodology and values for monetised benefits. The benefits framework, which currently has 50 + benefit measures (29 of which can be pre-populated), will be able to be used in populating quantitative benefits. Guidance is provided for both quantitative and qualitative benefits in the *Non-monetised benefits manual*.

For further technical detail regarding the benefits framework refer to the Benefits Framework technical paper.

## ASSESSMENT TOOLS OVERVIEW

Business cases are progressively developed as evidence becomes increasingly available. Prior to optioneering there are several prerequisites that must be met, these include.

- Problems/opportunities and the benefits being sought must be clearly defined.
- Investment objectives, which specify the desired outcomes for a proposed investment, must be articulated.
- The do minimum must be defined to enable comparison.
- A broad range of alternatives and options must be generated.

### Optioneering and the sifting approach

A sifting approach is used to establish a longlist of alternatives and options and refine to a shortlist. Through the sifting process:

- each filter removes some options
- an increasing number of options are rejected as the process progresses
- the level of effort required for each filter increases as the number of options that require testing goes down
- in cases where multiple options cannot be eliminated easily at the longlist phase, they should each be subjected to detailed appraisal
- the best or preferred option is the one that passes through all filters.

The assessment process when optioneering focuses on determining:

- whether an option or initiative has strategic alignment with transport system objectives (including GPS), strategies, plans and policies
- whether an option or initiative will deliver net benefits, ie benefits greater than costs – the benefits framework and its guidance documents can be used to identify and analyse benefits and costs
- the relative environmental and social and cultural effects of the options and alternatives under consideration, and
- whether the option or alternative can be implemented (eg consentable, ability to obtain property rights, etc).

Sifting alternatives and options is typically an iterative process, with the level of detail and accuracy improving as the business case is further developed. For large complex problems/opportunities, sifting of alternatives (strategic network and corridor level) is typically undertaken first (often with qualitative information). Once the preferred alternative has been agreed then options can then be generated and assessed. At the shortlist stage more detailed assessment is undertaken. It is important that economic assessment is included as part of the multi criteria analysis at the shortlist stage. This will enable robust comparison across options. Decision-makers should consider both monetised and non-monetised benefits and costs to make an informed choice regarding why a preferred option has been chosen. The rationale for the methodology and decisions made should be clearly articulated and documented. At the preferred option stage, detailed economic assessment should be undertaken. A benefit–cost ratio (BCR) is required for the shortlisted options. Iwi, community and stakeholder engagement is an important input into the sifting process.

## Assessment tools

The Early Assessment Sifting Tool (EAST) and multi-criteria analysis (MCA) tools can assist with the assessment of alternatives and options through the coarse screening, long list and short-listing process. The EAST and MCA templates have been designed to support a mode-neutral approach. Non-transport investment options should be assessed alongside transport-based solutions, and the same methodology should be applied.

The EAST supports an initial ‘coarse screening’ of alternatives and options. The EAST is designed to quickly and robustly rule out alternatives and options, allowing for a more manageable MCA exercise. The use of EAST is most useful where there are a large number of alternatives or options to consider. When there are only a few options, such as when using the single-stage business case lite, the EAST is not recommended for use.

MCA is a tool that can be used to evaluate multiple criteria, both quantitative and qualitative. MCA can be used to assess different alternatives and options to inform decision-making. MCA can be used to help assess the alternatives and options that may address the identified problems (not just transport interventions).

In all cases, the use of EAST and MCA will occur after investment objective setting. It is important that the rationale for discarding alternatives and/or options is clearly documented. This includes where an alternative or option does not align with investment objectives or there are fatal flaws. The EAST can assist with this. If there are already a manageable number of alternatives or options and the EAST is not used, then the rationale should be documented as part of the business case.

The EAST and MCA is supported by completion of the Waka Kotahi Environmental and Social Responsibility Screen, which can help with the selection of criteria and the assessment of options and alternatives<sup>1</sup>.

Potentially significant environmental and social effects (and opportunities) should be identified and considered. This will enable effects to be avoided, remedied or mitigated. Social and environmental effects have traditionally not been given due consideration and reported to decision-makers. Impacts such as *impact on social cost and incidents of crashes* are considered as part of the assessment against investment objectives.

The Appraisal Summary Table (AST) provides a structured way of presenting decision-makers with an overview of monetised, quantitative and qualitative benefits and costs at the short list and preferred option stage. Benefits from the benefits framework will be used to populate the AST.

Alternative/option assessment stage	Recommended tools and practice
Longlist (alternative and/or options)	Use Early Assessment Sifting Tool (for coarse sifting as required). Multi-criteria analysis (MCA)
Shortlist (options)	MCA with economic assessment output (eg benefit–cost ratio (BCR) or end-of-life net present value (NPV) included  Costs should be included at this stage  Appraisal Summary Table produced for each shortlisted option.
Preferred option	Detailed economic assessment, detailed BCR or end of life NPV.  Updated Appraisal Summary Table

The AST provides decision-makers with a consistent and transparent overview of monetised, quantitative and qualitative benefits and costs at both the shortlist and preferred option stage of a detailed or single-stage business case. Benefits that align with strategic priorities in the GPS are highlighted in the AST. Efficiency is demonstrated by reference to the calculation of a BCR (or net present value) as well as non-monetised benefits. Effectiveness is demonstrated by the benefits expected to be achieved.

<sup>1</sup> The Environmental Standard is currently state highway focused, however it is currently being updated to provide guidance on the scope of additional activities. The link to the current version is <https://www.nzta.govt.nz/roads-and-rail/highways-information-portal/technical-disciplines/environment-and-social-responsibility/national-standards-guidelines-and-specifications/esr-standard/>

# EARLY ASSESSMENT SIFTING TOOL

The Early Assessment Sifting Tool (EAST) is recommended for use when there are a large number of alternatives or options to consider, ie coarse screening.

## Introduction

The Early Assessment Sifting Tool (EAST) supports an initial 'coarse screening' of alternatives and options. The EAST is designed to quickly and robustly rule out alternatives and options that are non-starters, allowing for a more manageable subsequent MCA exercise. EAST has been designed to provide a consistent format for assessing all transport-related alternatives and options. The EAST has been adapted from UK Department for Transport best practice and aligns with NZ Treasury Better Business Case guidance.

In many cases only high-level information will be available at the early stages of considering alternatives and options. EAST is designed so that it can be applied without having to obtain detailed evidence, but with input from subject matter experts. They should use their judgement alongside evidence on the relative magnitudes of impacts to assess the net effect on an alternative or option.

The EAST does not provide definitive answers as to which are the best alternatives or options to be used in subsequent MCA. Critical thinking is important, especially when considering the right-sizing of possible solutions to a problem or opportunity.

## Benefits of using EAST

The benefit of using the EAST is that the tool:

- provides a consistent approach to coarse screening to refine the initial list of alternatives and options in the optioneering process without having to obtain detailed evidence
- assists in getting to a manageable number of alternatives and options for more detailed assessment through multi-criteria analysis
- encourages a broad range of alternatives and options to be considered
- eliminates non-starters early on to ease the appraisal burden and avoid resources being spent unnecessarily
- helps document decisions made (ie clear rationale for the rejection of alternatives/options).

The EAST template is provided in Attachment 1. This template is available in excel format for ease of use.

# MULTI-CRITERIA ANALYSIS

The multi criteria analysis guidance and template is recommended for use.

## Introduction

Multi-criteria analysis (MCA) is a tool that can be used to assess multiple criteria, both quantitative and qualitative. MCA can be used to compare different alternatives and options and assist with conversations between investors and stakeholders to help inform decision-making.

This MCA guidance and template will:

- provide guidance on a best practice process and approach to ensure robust and holistic assessment when moving from the longlist to the shortlist of alternatives and options
- support investment decisions being made consistently and transparently across business cases
- embed the intervention hierarchy, which ensures that a broad range of alternatives and options have been considered
- seek to create a replicable approach to scoring, such that a different group could apply the same assessment methodology and produce comparable results
- help identify environmental impacts and opportunities, and aligns investment and Resource Management Act 1991 (RMA) and Public Works Act (PWA) obligations. In particular this relates to the need for robust, transparent and a well-documented optioneering process throughout the entire business case development process; from the strategic case through to the implementation of the preferred option.

It is anticipated that MCA will be utilised as part of most business case optioneering processes to help investors and project teams evaluate alternatives and options at the longlist and at the shortlist phase to identify a preferred solution. It is not intended to be applied when making detailed design decisions post the identification of the preferred solution.

MCA outputs support making trade-off decisions between different alternatives or options. MCA does not provide definitive answers about which is the best alternative or option. Critical thinking is important, especially when considering the right-sizing of possible solutions.

## MCA group assessment techniques

MCA is often a group-based assessment activity, since it typically requires input from a range of different specialists. Although practically a single informed participant could complete low-complexity and low-risk MCA assessments, for the majority of activities it is anticipated that multiple participants will be involved in the MCA process.

There are two main methods of group decision-making techniques used for MCA scoring and selecting shortlists and preferred options. These can be broadly defined as decision conferencing, a structured format among individuals in a meeting, and the Delphi method, where participants are physically remote and identify and evaluate ideas/scores independently. Where practicable, it is recommended that a decision conferencing workshop method is used when undertaking MCA.

Decision conferencing provides for a structured format among individuals in a facilitated workshop, or across several workshops. A fundamental requirement is a comprehensive understanding of the activity or project involved. The exercise should be undertaken on the basis of agreed criteria and scoring approach.

Subject matter experts may first independently establish provisional scores based on known evidence. This step may be completed prior to the meeting. At the workshop each subject matter expert presents their own ideas and scores. These scores are then discussed, challenged and moderated and consensus made during the workshop.

## MCA criteria

The project team should select the appropriate criteria for their activity on a case-by-case basis. Investment objectives and critical success factors need to be included as part of all assessments. The reasoning for selection should be discussed and documented in the MCA report. If necessary to understand the potential social and environmental impacts of the activity, the Waka Kotahi Environmental and Social Responsibility Standard can be used to guide environmental and social criteria in the longlisting and shortlisting process<sup>2</sup>.

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<sup>2</sup> The Environmental Standard is currently state highway focused, however it is currently being updated to provide guidance on the scope of additional activities. The link to the current version is <https://www.nzta.govt.nz/roads->  
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The aim of criteria selection is to define:

- whether an alternative or option has strategic alignment with transport system objectives (including RLTP and GPS), strategies, plans and policies
- whether an alternative or option will deliver net benefits, ie benefits greater than costs
- the relative effects of the options and alternatives under consideration, and
- whether the alternative or option is achievable in relation to applicable legislation and regulations.

The identification and description of the criteria must be discussed and agreed upfront by the project team and where necessary key stakeholders. Further definition of a criterion may require the input of subject matter experts, as specific circumstances may need to be reflected.

For activities likely to require approvals under the RMA, Part 2 of the RMA is relevant. Part 2 outlines the RMA's purpose and principles. In identifying appropriate criteria for consideration, practitioners should ensure that relevant Part 2 matters are addressed through the specialist criteria selected. Advice should be sought from RMA planning specialists and/or legal counsel to ensure Part 2 matters are adequately provided for.

Not all the criteria will be relevant to every activity or at every stage of business case development. Stakeholders and/or customer perspectives should not be a criterion in and of itself. The root causes of objections or support should be captured within the relevant criterion. It may be relevant to include specific issues of interest to stakeholders (ie road safety or visual impacts).

If appropriate, a project team may wish to add intermediate and maximum ranges in addition to the do minimum to enable greater granularity.

The upfront cost of an activity should be included in an MCA process but should not be scored. The cost and fundability require a robust assessment separate to the MCA process.

### **Number of criteria**

The number of criteria should generally reflect the risk, opportunity, complexity and variety of the options assessed. As a rule, practitioners should aim for about 8–12 and no more than 15 criteria in a MCA. Including too many criteria can result in criteria scoring 'balancing out', or key criteria being outweighed by multiple other criteria. Also, double counting is more likely to occur if too many criteria are included. Some MCA will require fewer criteria than others; for example, a simple MCA process may use only four or five criteria, while a complex MCA could have significantly more.

### **Assessing criteria**

Subject matter experts advising on each criterion can provide indicative assessments for each option independently prior to the workshop. They should ensure that their assessment relates only to the specifics of the criterion as they have been applied to the particular activity, and that they do not comment on a matter or take into consideration a matter which is being considered in a different criterion.

## **Scoring – purpose and method**

Scoring allows for differentiation between options. The scoring system used needs to have sufficient range to sufficiently discern the benefits, disbenefits and/or effects of the various options.

There are a variety of scoring systems available. A seven-point scoring system, as detailed in Table 2 below, will be appropriate for most activities. It can be used to rate quantitative and qualitative measures within the MCA template. The rating scale comprises a 7-point scale from -3 to +3. A summary of option performance can be obtained by adding these scores together. If desired, the total score or relative ranking of each option can be reported as part of the MCA table.

While Waka Kotahi recommends a 7-point scale as the standard approach, a 9- or 5- point scale can be applied where more or less granularity in scoring would better represent the evidence available.

If a project team deems the use of another scoring system more appropriate, this should be discussed and agreed with MCA technical specialists and the reasons for the system adopted well documented.

Scoring systems should be used consistently through the MCA and the activity lifecycle to enable fair comparison between options. Hence, if a new option is introduced or a reassessment is required, the same scoring system should be used.

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[and-rail/highways-information-portal/technical-disciplines/environment-and-social-responsibility/national-standards-guidelines-and-specifications/esr-standard/](#)



**Figure 2: Seven-point scoring system**

Magnitude	Definition	Score
Large positive (+ve)	Major positive impacts resulting in substantial and long-term improvements or enhancements of the existing environment.	3
Moderate positive (+ve)	Moderate positive impact, possibly of short-, medium- or long-term duration. Positive outcome may be in terms of new opportunities and outcomes of enhancement or improvement.	2
Slight positive (+ve)	Minimal positive impact, possibly only lasting over the short term. May be confined to a limited area.	1
Neutral	Neutral – no discernible or predicted positive or negative impact.	0
Slight negative (-ve)	Minimal negative impact, possibly only lasting over the short-term, and definitely able to be managed or mitigated. May be confined to a small area.	-1
Moderate negative (-ve)	Moderate negative impact. Impacts may be short, medium or long term and are highly likely to respond to management actions.	-2
Large negative (-ve)	Impacts with serious, long-term and possibly irreversible effect leading to serious damage, degradation or deterioration of the physical, economic cultural or social environment. Required major re-scope of concept, design, location and justification, or requires major commitment to extensive management strategies to mitigate the effect.	-3

The colours used above may allow a useful visual assessment to be undertaken as part of the MCA. This system is clear in its relationship with the do minimum, in that the neutral score is equivalent to the do minimum.

## Sensitivity analysis

Weights represent beliefs about how important a particular criterion is compared to other criteria. If all criteria are considered to be equally important then all weights are the same. However, some criteria are often considered more significant and/or material to an activity than others.

To both ensure transparency and recognise the significance/materiality of different criterion, the following steps should be followed:

- **Step one:** Undertake scoring with all criteria having equal weighting.
- **Step two:** Undertake sensitivity analysis. This enables the robust examination of the results by exploring their sensitivity to weighted changes to different criteria. All changes to weighting and/or data should be done systematically to assess their effect on results.
- **Step three:** Document the results and the reasoning applied.

While weighting can be used as part of sensitivity analysis it should not be applied unilaterally to criteria to identify a 'preferred' option based on the scoring.

The MCA template is provided in Attachment 2. This template is available in excel format for ease of use.

# APPRAISAL SUMMARY TABLE

The use of the Appraisal Summary Table is required for any new business cases which start after 30 June 2020, to align with the mandatory use of the benefits framework from this time. For business cases already under development at 30 June 2020 the AST is recommended for use, except where this would involve rework.

The AST replaces the cost–benefit analysis summary pages in Transport Investment Online.

## Introduction

The AST summarises the impacts of an option (both positive and negative) compared with the do minimum. It provides decision-makers with a consistent and transparent overview of costs and monetised, quantitative and qualitative benefits and costs at the shortlist and preferred option stage of a detailed or single-stage business case. The AST replaces existing requirements within Waka Kotahi business case guidance, in particular, the economic summary table that is uploaded to Transport Investment Online.

The AST should include a summary of all relevant benefits (including disbenefits), both monetised and non-monetised, to allow informed decision-making. The number and level of assessment of benefits should be proportionate to the risk and scale of the activity. The source of monetised benefits information is the economic evaluation that is done in the economic case as part of the business case process.

## When should an AST be used?

The same AST template will be used at the short list and preferred option stage. As an example, if there are three shortlisted options, an Appraisal Summary Table should be prepared for each of the options to enable informed trade-off decisions to be made. Consistent with current guidance, the shortlist of options needs to be selected before detailed appraisal is undertaken and summarised through an AST. A rich narrative should be captured within the documentation for the economic case as to the reasons why decisions have been made to get from the short list to preferred option. The economic evaluation methodology used at the short list and preferred option stage will be the same however it will be commensurate to the stage of the business case development and available evidence. 'Not material' can be entered into a field after it has been considered and found not to be relevant to an investment decision, and rows added/deleted to reflect the breadth of the costs and benefits considered.

The AST helps support the economic case at the short list and preferred option phase, as part of a detailed business case (DBC), single-stage business case (SSBC) or single-stage business case lite (SSBC lite).

## The benefit of using an AST

The benefit of using an AST is:

- It presents both monetised benefits and costs and non-monetised benefits, describing all relevant impacts to decision-makers.
- It clearly demonstrates a proposal's alignment to outcomes.
- Properly calibrated, the AST reduces the incentive of those developing business cases to inflate benefits and underrepresent monetised costs to get a 'project over the line' (ie it tempers optimism bias).
- It illustrates all benefits so trade-offs can be more effectively made between options and then between proposals for different projects (the latter by decision-makers).

## Information covered by the economic case

In the business case, the AST replaces the *Economic Summary TIO upload* which previously focused on monetised benefits only. As such, the following components must still be included in the economic case alongside an AST, in line with existing published guidance:

- do minimum/do nothing description – ie, conditions that would exist without the activity being progressed
- optioneering and identifying the preferred option, including the rationale for this choice
- cost–benefit analysis methodology, incorporating detailed forecasting/modelling overview, including assumptions, model used etc
- sensitivity analysis
- incremental analysis
- first year rate of return (to help make decision on when we need something in place by eg now or in 5 years' time)
- identification, assessment and management of risk and uncertainty, including confidence in accuracy of quantitative estimates
- equity issues (particular groups/stakeholders that benefit or are negatively impacted).

The AST template is provided in Attachment 3. This template is available in excel format for ease of use.



# INTERVENTION HIERARCHY

Waka Kotahi will work with its investment partners to apply an intervention hierarchy to optimise existing and proposed new investments in the land transport system. The intervention hierarchy should be applied when generating and considering alternatives and options. The intervention hierarchy is used to help drive value for money by promoting low cost investment ahead of costlier physical infrastructure and technological investment. It promotes integrated planning, demand management and the best use of the existing system ahead of new infrastructure solutions.



# INTEGRATED PLANNING

Planning an integrated transport system is a multi-dimensional task that requires robust and iterative analysis of growth projections, future land use, spatial patterns and the impact of transport on economic activity, social interaction, culture and the environment. Integrated land use and transport planning is an essential input into the business case process and should drive regional land transport plans (RLTPs). Land-use interventions are a critical component of achieving outcomes. RLTP strategic sections provide a good overview of the combined impacts on outcomes of transport and land use planning decisions. Activity management plans (AMPs), mode shift plans, as well as other cross agency programmes such as future development strategies and spatial plans, provide context for the optioneering phase of business case development.

Integrated planning is an evolving area of consideration for government and Waka Kotahi. Emerging legislation needs to be actively incorporated into strategic analysis and development of land use and transport planning. For instance, the proposed [Urban Growth Agenda](#) marks a shift in the approach to urban development and infrastructure and the likely mix of instruments and levers that are available to relevant stakeholders. Additionally, Waka Kotahi is a signatory to the [NZ Urban Design Protocol](#), where we have committed to planning for, developing and promoting quality urban design.

Transport can't be viewed as an isolated activity. To achieve integrated solutions, it is essential that a collaborative approach to national, regional and local transport planning is achieved by working in partnership with other government departments as necessary – including the Ministry of Housing and Urban Development, Ministry of Education and Kainga Ora –iwi bodies, local government and the private sector.

It is good practice that there is a clear correlation between agreed strategies and plans and the problems and benefits identified in strategic cases through all phases of the Business Case Approach, including during alternatives and options selection.

## Spatial planning

A spatial plan provides a high-level direction or vision for future urban and economic growth and indicates the location and timing for delivering infrastructure over a 30-year time frame. It will set the overarching strategic objectives for an area. This is generally at a regional level but can also be at inter-regional or sub-regional level. Waka Kotahi inputs or partners with local government, multiple crown agencies, tangata whenua and potentially private sector investors and post treaty settlement entities when creating spatial plans. A spatial plan can illustrate:

- existing and future land use patterns
- existing and future infrastructure provisions and strategic corridors for infrastructure
- priority areas for growth and investment
- 'no-go' areas, and areas for balancing negative development impacts or restoring/maintaining environmental qualities
- other strategically significant priorities for the region.

A number of decisions are made during planning on spatial form which subsequently contribute to the business case process and the optioneering process. Spatial plans and supporting documentation can form part of the strategic context for business cases. Examples include the Auckland Transport Alignment Project or the Urban Form and Transport Initiative in the western Bay of Plenty. Often long-term land-use changes and strategic alternatives have already been considered and agreed as part of spatial planning. This will then form the basis for subsequent business case development, including alternative and option development.

## MOVEMENT AND PLACE

The One Network Framework helps provide the context for any potential interventions. By identifying both the movement and place function of roads/streets and corridors, in relation to the wider network, appropriate options can be considered. The One Network Framework sets out different street families which have different characteristics. In areas that have an important place function, e. town and city centres, options need to consider the space for people to dwell on and across a road or street, as well as how they move through a corridor. Additionally, the One Network Framework identifies different modal networks which need to be taken into consideration during optioneering.

Transport systems need to be designed to deliver access to opportunities rather than mobility as an end in itself. The One Network Framework can help identify the combined transport and land use context of the identified problem area, which is useful to inform appropriate responses types when generating alternatives and options.

## CLIMATE CHANGE – MITIGATION AND ADAPTATION

The Climate Change Response (Zero Carbon) Amendment Act 2019 addresses climate change mitigation (addressing the causes of climate change – reducing greenhouse gas emissions), and climate change adaptation (adapting to the impacts of climate change). The act provides a framework by which New Zealand can develop and implement clear and stable climate change policies for mitigation and adaptation that contribute to:

- the global effort under the Paris Agreement to limit the global average temperature to 1.5 degrees Celsius above pre-industrial levels
- Aotearoa preparing for, and adapting to, the effects of climate change.

### Climate change mitigation

- The act sets a target of net zero emission by 2050. The Climate Change Commission will recommend a series of five-year emission (reduction) budgets and the government will set the emission reduction budgets starting from 2022. Sector-specific budgets are not required but are expected. Provisional emission budgets are under development.
- Government is also required to establish an Emissions Reduction Plan that contains policies and strategies for meeting the relevant emission budget to respond to the emission budgets. The plan must include sector specific policies.
- The Ministry for the Environment is currently leading cross-government work to develop the government's Emission Reduction Plan. The Ministry of Transport is the lead agency for the transport sector, including land transport. A draft transport plan is tentatively proposed for the middle of 2020.
- The Ministry for the Environment is also leading cross-government work to update the social cost of carbon.
- The draft GPS 2021 and the Minister's Letter of Expectations set the expectation that Waka Kotahi will embed long-term emission reductions into planning and investment instruments. The draft GPS 2021 established reducing emissions as a strategic priority, to be achieved through all other strategic priorities.

- Waka Kotahi is not in a position to set emission reduction targets ahead of the Climate Change Commission's recommendations, but it is working with a range of partners to inform the setting of targets.

Setting emission budgets for land transport is complex and difficult. Toitu Te Taiao – the Waka Kotahi draft Sustainability Action Plan identifies that land transport emission reductions will be achieved by interventions that:

- **avoid** or reduce reliance on travel by car in our largest cities where greenhouse gas (GHG) emissions from light vehicles are most concentrated (eg through land use – compact growth/transit focused development)
- **shift** people who choose to travel from cars to other energy efficient modes such as public transport, walking and cycling – again focused on our largest cities (eg mode shift and increasing mode share for public transport and active modes)
- **improve** the energy efficiency of the vehicle fleet (eg supporting electric vehicle (EV) uptake).

To date, most cross-government effort has focused on the last of these (improving the vehicle fleet). Toitu Te Taiao identifies that vehicle fleet interventions must be complemented with initiatives that help people to avoid the need to travel by car and/or shift to more energy efficient modes. The issue with this is that we do not know the overall contribution that 'avoid and shift' interventions can make relative to 'improve the vehicle fleet' interventions. This is complicated by the fact that there are currently no transport models able to reliably model the impact of a range of land use and mode shift interventions on emissions – although expert advice is that some models can be adapted for the purpose.

With the above in mind, the IDMF team and the Toitu Te Taiao team have been working together to take a staged approach to embedding emission reduction requirements into key planning and investment instruments.

The **first** stage includes:

- Setting the expectation that consideration of GHG emission impacts is mandatory for all activities. This now forms part of the Appraisal Summary Table.
- Guidance for optioneering on how interventions can be optimised to reduce GHG emissions and consider long term outcomes for emission reductions.
- New investment principles also support emissions reductions through the focus on providing for long-term outcomes and for programmes and packages purposefully designed to support delivery or more than one outcome.
- Proposed criteria for investment prioritisation that are consistent with the above – and leveraging public transport/active mode interventions.
- A range of other initiatives outside the IDMF review to embed emission reductions into Waka Kotahi practice and focus.

The **second** stage requires work to provide a practical methodology, tools and guidance for how to consistently assess for emission impacts and set targets particularly in the absence of any robust models capable of assessing avoid/shift/improve interventions at the same time. Once this work is tested, refined and complete, we envisage embedding the practical tools and guidance into the Investment Decision-Making Framework.

The National Climate Change Risk Assessment (NCCRA) will provide a national overview of how various hazards and threats throughout the country might be influenced by climate change, and how these hazards may impact infrastructure (including land transport infrastructure). The first NCCRA is expected to be completed by mid-2020. The government will use it to prioritise actions to reduce risks, improving resilience of the system, or take advantage of opportunities through its National Adaptation Plan.

## Climate change: interim guidance for adaptation and mitigation

Climate change mitigation and adaption are key considerations when optioneering. Key questions to ask when considering GHG emissions are:

- Is this alternative or option on its own or as part of a package or programme likely to increase, have no impact or reduce demand for travel by car, now or in future?
- If the alternative or option on its own or as part of a package or programme likely to increase or have no impact on demand by car:
  - Consider if there are climate friendly alternatives or options that could reduce demand for travel by car (and therefore emissions).
  - Consider complementary activities to mitigate the potential increase in emissions (either within the same package or programme, or forming part of another package or programme).
- Is the activity on its own or as part of a package or programme likely to reduce reliance on travel by car, now or in future? If so:

- What is the potential scale of the reduced demand? (For example reducing vehicle kilometres travelled (VKT) or increased mode share for public transport/active modes.)
- What supporting interventions may be required to optimise emission reductions? (For example incentives, parking management, workplace travel planning.)
- On balance, is the RLTP (for major urban areas) likely to increase demand for travel by car, make no difference to demand for travel by car, or reduce demand for travel by car? If the RLTP is likely to increase demand or have no impact on demand, then mitigation of emissions arising from travel by car is expected.

### Optimisation

Investment in 'climate friendly' activities does not automatically mean that transport emissions will reduce. Research tells us that for emissions to reduce, integrated packages of interventions must be specifically designed and optimised to reduce emissions through avoiding or reducing reliance on travel by car, and/or shifting to other more energy efficient modes. This means taking account of things like land use, provision of and proximity to shared and/or active modes, how efficient the movement of shared/active modes is (eg bus prioritisation lanes), and what demand management interventions are in place to support durable behaviour change (eg parking management; reduced public transport fares etc). Stand-alone climate friendly activities are unlikely to achieve sustained reductions in emissions.

To ensure climate change is considered the impact of climate gas emissions is a mandatory requirement within all the assessment tools (EAST, MCA and AST). In addition, adaptation is also included as a key criterion within the EAST and MCA optioneering tools.

## APPROACH TO TE AO MĀORI

Māori should be supported and enabled to contribute in a meaningful way to the decision-making process as investment decisions touch on matters that affect Māori and input may have influenced some of these outcomes. Māori are often involved during the delivery of an activity. However, that is often too late to properly incorporate Māori perspectives. Current investment guidance, tools and methodologies do not adequately incorporate a Māori/iwi perspective. The overarching goal is to provide recognition and visibility as to how consideration of Māori/iwi perspective and aspirations are included within investment decision-making and assessment tools.

Te Ara Kotahi (our Māori Strategy) provides strategic direction to Waka Kotahi on how we work with and respond to Māori as the Crown's Treaty partner, and what this means for how we do business.

Māori are partners of Waka Kotahi and there is also a need for Waka Kotahi to meet its Land Transport Management Act 2003 (LTMA) requirements. Section 18H of the LTMA requires Waka Kotahi to establish and maintain processes to provide opportunities for Māori to contribute to land transport decision-making processes and consider ways to foster the development of Māori capacity to contribute to the organisation's land transport decision-making processes.

Similarly, the Local Government Act 2002 provides principles and requirements for councils that are intended to facilitate participation by Māori in local government decision-making processes.

To ensure visibility of the impact on Māori, the assessment tools (EAST, MCA and AST) include a specific row for Te Ao Māori impacts (ie mandatory for consideration). In addition, business case guidance is currently being updated with the help of the Māori Strategy team to provide clarity on Māori participation in business case development as the Crown's Treaty partners.

## CRITICAL STATUTORY REQUIREMENTS FOR OPTIONEERING PROCESS

There are a number of legislative requirements to consider throughout all business case optioneering and decision-making processes. In particular, robust, transparent and well-documented optioneering and decision-making processes are critical to meet the statutory requirements under the LTMA, Resource Management Act 1991 (RMA) and Public Works Act 1981 (PWA). Rather than adding undue layers of complexity, these legislative obligations generally reflect best practice and are likely to enhance business case processes and outcomes.

### Land Transport Management Act

The LTMA sets out the legislative requirements which govern Waka Kotahi investment from the NLTF. When Waka Kotahi is approving proposed activities or combination of activities, key legislative requirements under section 20 include that an activity or combination of activities:

- is consistent with the GPS on land transport

- is efficient and effective
- contributes to the agency's objectives
- has, to the extent practicable, been assessed against other land transport options and alternatives.

In addition, the LTMA places a number of obligations on the way Waka Kotahi undertakes its functions. In particular, it requires Waka Kotahi to:

- exhibit a sense of environmental and social responsibility
- facilitate participation by Māori in land transport decision-making
- ensure transparency in decision-making and use of revenue and expenditure.

### **Resource Management Act and Public Works Act considerations**

Investment proposals requiring approvals under the RMA and/or requiring compulsory acquisition of land under the PWA, may be required to meet certain tests associated with optioneering and decision-making processes. This influences business case development processes and decisions across the entire business case development process; a thread that runs from the strategy case through to the implementation of a preferred solution.

These RMA and/or PWA requirements oblige Waka Kotahi and its investment partners to clearly demonstrate:

- adequate consideration of alternatives throughout the entire optioneering process (from long-listing onwards). It is not necessary to consider all possible alternatives and options or evidentially eliminate alternatives that are clearly speculative or suppositious. In terms of the requirements under the RMA, an organisation is also not required to select the 'best' option. What is necessary is to demonstrate that an appropriate broad range of alternatives has been adequately considered
- systematic and transparent optioneering and decision-making processes
- a sound argument for why any proposed physical works are 'reasonably necessary' (under the RMA) including the ability to demonstrate 'reasonable need' for any land required (PWA)
- appropriate recognition and provision for the principles of the Tiriti o Waitangi in relation to managing the use, development, and protection of natural and physical resources and the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga
- consideration of a proposal's social, cultural, environmental and economic effects and appropriate action considered to avoid, remedy or mitigate any adverse effects.

While the specific RMA and/or PWA requirements associated with a particular activity are not known until at least the indicative business case stage, it is necessary to ensure that all optioneering and decision-making processes met these requirements from the outset to ensure they are sufficiently robust to support any subsequent RMA approval or PWA requirements.

Seeking early input from property, RMA planning technical and legal specialists into the business case process (particularly from the long listing onwards) will help facilitate integrated decision-making and ensure these processes meet the necessary legislative requirements.

The process of refining alternatives and options from a long list to a short list to a preferred solution involves an increasingly refined process with progressively detailed and focused investigations and information filtering. The inclusion of 'environmental' criteria in optioneering processes will almost always be appropriate from the longest stage onwards with increased granularity required at the short list stage.

It is likely that specific environmental criteria will be required to assess different physical options (eg different greenfield transport corridors). Identification of appropriate environmental criteria should be based on an assessment of constraints, opportunities and risks applicable to the area in question.

## **UPDATED DEFINITIONS**

### **Alternatives**

An alternative is a strategic way of responding to a problem or opportunity applying a whole-of-system approach (can include corridor or network planning), such as exploring the potential for different land use arrangements or encouraging greater use of other modes to address projected growth in network demand. Alternatives may have been identified as part of spatial planning but may also be developed as part of the business case approach. In addition, the assessment of alternatives needs to meet RMA and PWA requirements as described above. In developing alternatives, it is important to consider the intervention hierarchy, which addresses:

- *demand* – for example, ways in which the need for travel can be reduced
- *productivity* – for example, by making sure the current system is optimised as far as reasonably practicable
- *supply* – for example, provision of new services or infrastructure.

## **Options**

Options represent different ways to achieve an outcome or objective. For example, if it had been decided that the best way to address a particular problem was to improve an intersection for safety or efficiency reasons, options could include: building a roundabout, installing traffic signals, or grade separation. The assessment of options needs to meet RMA and PWA requirements as described above.

## **Fatal flaws**

A fatal flaw is a condition or circumstance that means the option will not be able to be achieved or that the risk is so great that the option is not worth pursuing. Fatal flaw analysis involves a high bar. Options that are highly difficult but not fatally flawed should remain in the mix and be scored appropriately.

Many fatal flaws relate to aspects which are not consentable under the RMA, where property cannot be acquired, or where unresolvable legal challenges may arise. Engineering complexity is rarely a fatal flaw, although natural hazard exposure may be. Financially expensive options in and of themselves should not be considered fatally flawed.

## ATTACHMENT 1: EARLY ASSESSMENT SIFTING TOOL TEMPLATE

- The EAST tool will be in excel format. It will provide an overview of the project including problem/opportunity statement, description of do minimum and investment objectives. The assessment of each alternative or option is undertaken and then this information is pulled through to a summary page. This summary can then be used to rule out alternatives and options that are non-starters.
- The EAST tool will have pop-ups. The pop ups will describe what should be entered into a cell.

### Project overview details

Fields	Pop ups	Drop down
Date		08/05/2020
Project name	Same description as TIO i.e. connected communities	User to enter
Business case phase	Same description as TIO	<ul style="list-style-type: none"> <li>Programme business case</li> <li>Indicative business case</li> <li>Single stage business case</li> </ul>
Problem/opportunity statement	Problem/opportunity statement as defined by the business case	User to describe
Do minimum		User to describe
Investment objective and benefit measures	Investment objectives specify the desired outcomes for a proposed investment. It is likely that only initial measures will be available at this stage with no set targets.	<p>1. Investment objective (e.g. safety outcomes)</p> <p>Measure</p> <p>Measure</p> <p>2. Investment objective (e.g. public transport outcomes)</p> <p>Measure</p> <p>Measure</p> <p>3. Investment objective (e.g. active mode outcomes)</p> <p>Measure</p> <p>Measure</p>

### Alternative or option details (complete for each alternative or option)

Header 1	Header 2	Header 3	Scoring question	Drop down level 1	Drop down level 2	Pop up text
	Unique identifier				Rating (drop down within excel)	
	Name of alternative/ option				User to describe	
	Description of alternative/ option				User to describe	Provide a brief description of the alternative/option
<b>Investment</b>						
Investment Objectives			What is the potential of the alternative/option achieving investment objectives?	1. Investment objective (e.g. safety outcomes)	1. low 2. 3. 4. 5. High	Alternatives and options need to be assessed for their ability to deliver against investment objectives. Assessment should be made against investment objectives (i.e. not measure level).

Header 1	Header 2	Header 3	Scoring question	Drop down level 1	Drop down level 2	Pop up text
				2. Investment objective (e.g. public transport outcomes)	1. low 2. 3. 4. 5. High	
				3. Investment objective (e.g. active mode outcomes)	1. low 2. 3. 4. 5. High	
Investment	Practical Feasibility	Technical	Rate the technical or practical ease/difficulties that may be present when implementing this alternative/option, for example local site geography or existing contracts?		1. low (easy) 2. 3. 4. 5. High (difficult) Don't know	
		Safety and Design	Rate the level of potential hazards associated with the alternative/option which pose a health and safety risk in design, operation or maintenance?		1. low 2. 3. 4. 5. High Don't know	
		Consentability	What is the level of consenting complexity/difficulty and the risks of this adversely impacting on required project timeframes or other aspects?		1. low (easy) 2. 3. 4. 5. High (difficult/complex) Don't know	
	Scheduling / programming <i>(no colour as not good or bad)</i>		When could the option / alternative be delivered?		0-2 years 2-5 years 5+ years	
	Cost <i>(no colour as not good or bad)</i>		What is the likely range of the upfront capital cost of the alternative/option?		< \$1 million \$1-\$5 million \$5-\$50 million \$50 + million	
	Key risks and uncertainties.		Does the alternative/option have any significant risks or uncertainties?		User to define	
<b>Climate change and Te Ao Māori</b>						
Opportunities and impacts	Climate change	Mitigation	What is the expected impact of the alternative/option on demand for travel by car, now or in the future?		Increase	This is a proxy for greenhouse gas emission impacts.

Header 1	Header 2	Header 3	Scoring question	Drop down level 1	Drop down level 2	Pop up text
					Neutral Reduce	
		<b>Adaptation</b>	Is the alternative or option exposed to climate change risk or other natural hazards over time?		Yes No Maybe	
	<b>Impacts on Te Ao Māori</b>		What, if any, impacts are there on Te Ao Māori? This includes areas of significance for Māori, Māori land and Kaitiakitanga (recognition that the environment is a taonga).		User to describe where there are significant impacts Are any of these fatal flaws?	
<b>Environmental and Social Responsibility</b>						
Identify potential significant environmental and social effects and whether they are likely to be avoided, remedied or mitigated. The Environmental and Social Responsibility Screen can be used to help identify effects and opportunities; however, it is not necessary to undertake the screen for each alternative or option if the environmental context is not materially different and the effects of the alternative/options on the environment are the same or very similar.						
	<b>Environment, social and cultural</b>	<b>Identify</b>	Are there any significant environmental, social or cultural effects, including biodiversity, biosecurity, landscape, air quality, water quality, natural hazards, noise, contaminated land, heritage and archaeology etc?  Cumulative effects, if any, should also be identified. Cumulative effects may be insignificant on their own but may accumulate over time or space with other effects to become significant.  Long-term and short-term effects should be considered including those arising from the construction, operation, maintenance and use of the transport asset.		User to describe where there are significant effects Are any of these fatal flaws?	
		<b>Mitigation</b>	Can these be avoided, remedied or mitigated?		User to describe	
<b>Fatal flaws</b>						
<b>Fatal flaws</b>			Does the alternative/option present any fatal flaws?		User to describe	Fatal flaws listed with text field for description

## ATTACHMENT 2: MULTI CRITERIA ANALYSIS TEMPLATE

Summary Description	
<b>Activity Name</b>	Given name and identifier for activity. Please note that this should align with the Transport Investment Online naming convention.
<b>Problem/opportunity statement</b>	Problem/opportunity statement as defined by the business case
<b>Benefits</b>	What is the primary benefit of addressing this problem/opportunity (from the benefits framework)?
<b>Investment Objective</b>	The intended <a href="#">outcomes</a> or goals of an investment – what the investment is aiming to achieve.
<b>How project gives effect to GPS</b>	GPS Priorities are considered within the Transport Outcomes section below.
<b>Do Minimum</b>	Define Base Case for comparison

Intervention type/s (sourced from intervention hierarchy. To be added / deleted as appropriate)	Do Minimum	Intervention hierarchy			
		Integrated Planning	Manage Demand	Best Use of Existing System	New Infrastructure
Long-list options	(Example ratings)	<b>Option / Alternative 1</b>	<b>Option / Alternative 2</b>	<b>Option / Alternative 3</b>	<b>Option / Alternative 4</b>
Investment Objective and relevant Transport Outcome					
Healthy and safe people	Moderate (-ve)				
Resilience and security	Neutral				
Economic prosperity	Slight (-ve)				
Environmental sustainability	Slight (+ve)				
Inclusive access	Slight (-ve)				
Critical Success Factors: Practical considerations that will dictate whether the option / alternative can be successfully implemented. Project-specific rows can be added if other considerations are relevant.					
Achievability/ Feasibility (Programme Business Case only)	Slight (+ve)				
Technical (Indicative Business Case only)	Slight (+ve)				
Safety and design (Indicative Business Case only)	Slight (+ve)				
Consentability (Indicative Business Case only)	Slight (+ve)				
Potential affordability (Programme Business Case only)	Slight (+ve)				
Capital (Indicative Business Case only)	Slight (+ve)				

Operational/ Maintenance (Indicative Business Case only)	Slight (+ve)				
Potential value for money	Slight (+ve)				
Supplier capacity and capability.	Moderate (+ve)				
Urgency	Large (+ve)				
opportunities and impacts (insert N/A if not relevant)					
Environment effects	Slight (-ve)				
Social and cultural impacts	Slight (-ve)				
Climate change mitigation	Neutral				
Climate change adaptation	Slight (-ve)				
Cumulative impacts	Neutral				
Impacts on Te Ao Māori	Neutral				
Property impacts	Large (-ve)				
Proposal specific critical success factors -					
TBC	Moderate (-ve)				
<b>Cost (not to be scored)</b>	<i>e.g. \$125 million capital</i>				
<b>Comments/Notes from discussion</b>					
<b>Decision</b>	Possible	Preferred	Discounted	Possible	Possible

## ATTACHMENT 3: APPRAISAL SUMMARY TABLE TEMPLATE

Summary Description			
<b>Option name</b>	<i>Given name and identifier for option</i>	<b>Date and Appraisal Period</b>	<i>Starting year and timeframe analysed</i>
<b>Problem/opportunity statement</b>	<i>Problem/opportunity statement, defined by the business case</i>	<b>Investment objectives</b>	<i>The intended <a href="#">outcomes</a> or goals of an investment</i>
<b>How project gives effect to GPS</b>	<i>(High level outcome)</i>	<b>How the project gives effect to local community outcomes</b>	<i>Any key impacts on councils or local stakeholders (high level outcomes)</i>

Transport Outcomes Name of Benefit	Non-Monetised Impact <i>(description in numerical or narrative terms, e.g. number of crashes)</i>				Monetised Impact <i>(description in dollar terms in real terms, non-discounted)</i>	
	Name of Measure <i>(The quantitative or qualitative measure as per the Benefits Framework)</i>	Baseline Situation <i>(status quo or measure at year zero of the appraisal period)</i>	Do Minimum Impact <i>(forecast of expected change over time, should the option not be implemented)</i>	Preferred Option Impact <i>(forecast of expected change over time, should the option be implemented)</i>	Do Minimum Impact <i>(expected change over time, should the option not be implemented)</i>	Option Impact <i>(in absolute terms, to allow comparison with the Do Minimum)</i>
<b>Healthy &amp; safe people</b> <i>(add or delete rows as appropriate)</i>						
<i>Name of benefit</i>						
<b>Resilience and security</b> <i>(add or delete rows as appropriate)</i>						
<i>Name of benefit</i>						
<b>Economic prosperity</b> <i>(add or delete rows as appropriate)</i>						
<i>Name of benefit</i>						
<b>Environmental Sustainability</b> <i>(add or delete rows as appropriate)</i>						
<i>Name of benefit</i>						
8.1 Impact on greenhouse gas emissions (mandatory)						
<b>Inclusive access</b> <i>(add or delete rows as appropriate)</i>						
<i>Name of benefit</i>						
12.1 Impact on Te Ao Māori (mandatory)						

1. Summary of Non-Monetised benefits <i>(Descriptive)</i>	2. Summary of Financial Impacts <i>(Total dollars in nominal, non-discounted terms – provided for context only ahead of financial case)</i>		3. Summary of Monetised Option benefits and costs <i>(Real, Present Value terms, relative to the Do Minimum)</i>	
<i>Description of qualitative and quantified benefits identified above</i>	Capital Costs		Total monetised benefits, <b>excluding</b> Wider Economic Benefits (WEBs)	
	Operating Costs		Total monetised benefits, <b>including</b> Wider Economic Benefits	
	Total Financial Costs		Total monetised costs	
			BCR (excluding WEBs)	
			BCR (including WEBs)	

### Rationale for selecting preferred option

*Reason why preferred option was chosen. i.e. consideration of non-monetised impacts reasons for best performing. Groups or individuals impacted by positive and negative externalities. Include results of incremental analysis and first year rate of return.*