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# LOW COST LOW RISK PROGRAMMES

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

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Waka Kotahi NZ Transport Agency is reviewing the threshold for low cost, low risk (LCLR) activities. (The threshold was increased by the Transport Agency to \$1M in 2017.) The Transport Agency is updating guidance on LCLR programmes to ensure an appropriate level of information is provided about benefits. Any changes to the threshold or new guidance will apply to LCLR programmes in the next National Land Transport Programme, from 1 July 2021.

# PURPOSE

The purpose of this paper is to:

- define Low Cost Low Risk (LCLR)
- outline updated LCLR information requirements
- introduce the Single-Stage Business Case Lite
- define the criteria used to establish the LCLR threshold
- introduce associated improvements.

## LOW COST LOW RISK DEFINITION

Waka Kotahi NZ Transport Agency is amending and simplifying the definition of a Low Cost Low Risk activity as

“Any activity within an identified activity class that has a total implementation cost within the Low Cost Low Risk threshold”

LCLR activities will apply to the following identified activity classes (subject to changes to activity classes in the Government Policy Statement on Land Transport (GPS) 2021):

- Public transport
- Rapid transit
- Transitional rail
- Walking & cycling improvements
- State highway & local road improvements
- Regional improvements
- Promotion of road safety & demand management.

The LCLR threshold is currently set at \$1,000,000 for all project costs (including administration costs) from design through to implementation.

## LCLR INFORMATION REQUIREMENTS

The Transport Agency has completed a review of the LCLR process which covered data, process and requirements. Issues have been identified (discussed below) with the LCLR information that the Transport Agency captures. The quality and type of information supporting LCLR programmes needs to improve to ensure we capture accurate data on the programme and individual projects and to ensure we can assess and determine the benefits relative to the GPS of choosing to invest in each programme.

## Additional information requirements

An important principle for LCLR programmes is to manage the National Land Transport Fund (NLTF) investment cost effectively with minimal process churn. Information requirements need to be appropriate for management of a LCLR programme and demonstrating the value of the investment.

In accordance with this principle, the following additional information on a LCLR project is proposed:

- **Individually listed projects** – All projects will need to be individually listed to understand what is included in the LCLR programme.
- **GPS alignment** – The alignment with the GPS will need to be specified for each individual project.
- **Project location information** – Location information will need to be provided for each individual project to allow benefits mapping to be undertaken across the LCLR programme.
- **Benefits** – A benefit measure from the Transport Agency's benefits framework will need to be identified for each LCLR project. This will allow benefit measurement to be undertaken.

## Issues with the current LCLR processes and controls

We have identified the following issues within the LCLR process that need to be resolved

- The LCLR template is completed inconsistently between approved organisations (AOs). Some AOs list most of their projects individually, or, for some, projects are grouped together, which can lead to their programme having significant balances with limited details on the project elements, their benefits and the funding proposed.
- LCLR programmes are only reviewed quarterly or annually; however, the Transport Agency and AOs can change their programme at any time and without formal verification of the updated programme.
- The process for forming the LCLR programme varies between the Transport Agency and our AO partners. The Transport Agency's Network Outcome Contract suppliers record LCLR projects through HAPAI (access projects), SWIPP (safety projects) and hard copy documents (other projects), our AO partners generally use an Excel template that is accessed through Transport Investment Online (TIO). LCLR programme development would benefit from having one app, accessible by the Transport Agency and AOs, that can be used for all projects and which interfaces directly with TIO.
- LCLR benefits are only reported at a high level and on an ad-hoc basis.
- LCLR projects are coded to two work categories "WC 341: Low cost, low risk roading improvements" or "WC 532: Low cost, low risk public transport improvements". These work categories reside under local road & state highway improvements, and public transport, activity classes respectively. Currently some LCLR costs are being incurred that may not entirely relate to these activity classes.

We have outlined key changes required to TIO under "Improvements to LCLR processes & controls" and "Low Cost Low Risk separated by activity classes" to resolve the issues identified above.

## Improvements to LCLR processes and controls

The Transport Agency is working to identify TIO improvements required to enhance the LCLR systems and process. The suggested improvements include:

- **Improved LCLR oversight** – Develop a TIO report that allows LCLR changes to be collated between programme updates. These reports would be reviewed quarterly by the System Management Investment Advisors. This would require AOs to regularly update their LCLR programmes.
- **Benefits management** – The current LCLR spreadsheet has a column for primary benefit. This should be updated to a drop-down box which is linked to our benefits framework. Multiple

measures could be selected allowing the LCLR programme to be rolled up for benefits assessment and reporting on at an outcomes level.

- **Benefits reporting** – project co-ordinates would allow us to track LCLR projects against risk areas within the network. This information will help us in determining the benefits we obtain from these projects. A report could also be developed allowing this information to be regularly reported.
- **Improved data quality validation**– Data validation controls could be implemented in TIO that highlight missing data or data that is in error (eg columns can only add to a million and spreadsheet password is changed). TIO could reject the spreadsheet until the issues are rectified.
- **GPS alignment** – A column should be added to the LCLR activity template called GPS alignment. The column would contain a drop-down box with high, medium, low & none options, which can be used to assess the project's alignment to the GPS.

## LCLR separated by activity classes

All LCLR projects are currently coded to either work category “WC 341: Low cost, low risk roading improvements” or “WC 532: Low cost, low risk public transport improvements”. These require the completion of separate LCLR activity templates.

“WC 341: Low cost, low risk roading improvements” includes LCLR projects from all work categories (excluding public transport). This approach is leading to the local road and state highway activity classes being overcharged.

TIO has the functionality to extract and sort data from spreadsheets. An activity class column could be added to the LCLR activity template. This would allow TIO to automatically code each LCLR project to their specific activity class. This approach would require:

- The work category to be renamed to “WC 341: Low cost low risk improvements”
- The work category to be set up under each activity class
- A new column called activity class being added to the LCLR activity template.

TIO would be updated to extract the relevant data from the spreadsheet and to code it automatically to the correct activity class.

# CRITERIA TO ESTABLISH THE LCLR THRESHOLD

Criteria to be considered when establishing or changing the LCLR threshold include:

- The benefits and risks from changing the threshold
- The type, cost and number of activities included within the LCLR programme
- Cost/savings impact from changing the threshold
- Robustness of information supporting LCLR programmes.

We have provided analysis on each of these criteria below.

## Benefits and risks from changing the LCLR threshold

We have identified the following benefits and risks that need to be considered when establishing the LCLR threshold.

### Benefits

- **Faster funding decisions** – The total budget for the 3-year LCLR programme is decided upfront during the development of the National Land Transport Programme (NLTP). As a separate business case is not required to draw down this funding the project can move directly to the implementation phase.
- **Programme flexibility** – AOs can change their LCLR programme at any time. This means if certain projects cannot be delivered within the 3-year period, or a better alternative is identified, the programme can adapt to incorporate other projects without a complex approval process.
- **Builds trust with AO partners** – The ability to exercise discretion and decision rights under LCLR threshold increases an AO's ability to self-manage its NLTF investments. It is an important means of building trust with our co-investment partners by allowing more autonomy and helping to ensure the business case process is efficient.
- **Removes business case churn** – Many business cases within the \$1–5M bracket are for low risk projects. These projects have a high volume and do take up a significant amount of the sectors' and the Transport Agency's time. Having a higher LCLR threshold would allow the Transport Agency and AOs to focus more resources on higher risk projects.
- **Alignment to movement in cost indices** – External factors such as inflation, price of oil and foreign exchange rates can dramatically impact on the prices of goods and services. Ensuring the threshold is periodically adjusted to account for any significant changes in cost indices would ensure that the same sort of interventions relative to risk can continue to be included within the LCLR programme.

### Risks

- **No robust risk assessment** - A robust risk assessment is not completed for individual LCLR projects. This means that some moderate to high risk projects may be funded through the LCLR programme with wider impacts on the network that have not been considered.
- **No thorough options analysis** – The LCLR programme is “solutions orientated” with a pre-determined option identified for the project. LCLR is not suited for options analysis, and consideration of the intervention hierarchy. This may lead to a lower cost, rather than a more effective, solution being implemented.
- **Programmes of work could be broken into chunks** – Programmes of work which are required to solve significant transport issues may be broken up and funded under the LCLR programme. This could lead to a piecemeal approach being taken to solve significant issues rather than the root cause being investigated and an appropriate, holistic solution being implemented – through a

business case. N.B. the breaking up of activities in this way is not consistent with the LCLR eligibility criteria.

- **Limited benefits information** – Currently there is limited information captured on benefits from the investment in LCLR programmes.
- **Low value work being completed** – Funding for the LCLR programme is set at 3-year programme level. The LCLR programme can be changed by an AO at any time if they remain within their overall budget. There is a risk that some LCLR projects would not be individually funded if submitted to the Business Case Approach, as they have low benefits return and are not fully aligned to GPS outcomes.
- **Poor quality data** – the LCLR template is completed inconsistently. Some AOs list most of their projects individually, for others projects are grouped together, which can lead to their programme having significant costs with limited detail captured on how the funding will be used.
- **Limited programme oversight** – The programme approved at the beginning of the 3-year NLTP cycle is likely to be significantly different to the programme delivered. AOs and the Transport Agency can change their LCLR programme at any time, without approval, through the 3-year NLTP cycle. Periodic reviews of the LCLR programme are undertaken. However, it is difficult to identify how the programme has changed given the limited reporting.
- **Fixed threshold does not account for individual AO's demonstrated competence to effectively manage a LCLR programme** - As noted above there are many benefits and risks to managing the LCLR effectively. To better manage risks the Transport Agency could consider setting a specific threshold for each AO (higher or lower than the current \$1m). This could be based on the AO's demonstrated competence in managing the above risks and other risks identified from a Transport Agency audit.

## Projects included in the LCLR programme

All Activity Classes Combined					
\$M LCLR cut off threshold	Total \$ NLTF over 3 years up to Threshold (\$M) - Cumulative	Total \$ Cumulative as % of Total NLTF	Cumulative Number Projects	Cumulative Number of Projects as % of Total Number of Projects in NLTP	Number of projects in cost band
\$1M*	\$583.8	6.5%	1,235	65.5%	1235
\$2M	\$642.3	7.2%	1,318	69.9%	83
\$3M	\$709.75	7.9%	1,383	73.3%	65
\$4M	\$851.79	9.5%	1,461	77.5%	78
\$5M	\$928.01	10.3%	1,507	79.9%	46
Total ALL NLTP	\$8,966.96		1886	(total number of projects)	

\* Includes Standalone projects <\$1M. (All tables)

\*\* Number of LCLR projects <\$1M estimated (taken via divided the total spend <\$1M divided by 1

There is currently one LCLR threshold, which is set at \$1M for the Transport Agency and our AO partners regardless of their size or risk. In the 2018-21 NLTP, based on the current \$1M LCLR threshold, \$584M or 6.5% of the total programme, involving 1235 projects are below \$1M. This is a low percentage of the total programme value, but a high percentage of total projects funded through the NLTF.

If an alternative LCLR threshold was implemented, for example \$300K, \$1M or \$5M, up to \$928M total value or approximately 10.3% of the current total programme, involving 1507 projects, would be managed through the LCLR programmes<sup>1</sup>.

## Cost impact from changing the threshold

In November 2018, analysis was completed over a sample of Transport Agency single-stage/detailed business case costs compared to the project's total pre-implementation, implementation and property costs. The findings have been outlined below:

Project cost range	Total business case costs	Total project costs	Average business case cost compared to total project cost	Min/max proportion
Under \$5m	\$2.1M	\$34.7M	6%	1%-19%
\$5-20m	\$9.9M	\$158.9M	6%	1%-26%
\$20-100m	\$23.4M	\$281.7M	8%	1%-21%
\$100+	\$79.3M	\$1,483.4M	5%	4%-17%

From this data, we can see that for every \$1M of project costs, on average, \$60K is spent on business cases development for projects between \$1-5M. Based on the data, increasing the LCLR threshold to \$2M could move about \$58M of projects into LCLR. This would save up to \$3.5M in business case development costs (based on existing business case approaches). If the threshold was moved to \$5M about \$344.2M of projects would move into the LCLR programme, saving up to \$20.6M in business case development costs.

In future, activities that exceed the LCLR threshold will require a Single-Stage Business Case Lite for projects with implementation costs below \$5M (refer to the technical paper Right-Sized Business Case Guidance). Use of the Single-Stage Business Case Lite template will save business case developers time and money and is, alongside considering the LCLR threshold, an alternate or complementary means of reducing the overall costs of business case development.

## Robustness of information supporting Low Cost Low Risk programmes

Robust information supporting a LCLR programme is important to understand what the programme comprises, what process is being used to select these activities and the costs and benefits expected to arise from the programme. A higher threshold is more likely to be considered where robust information and processes are being used for LCLR programmes.

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<sup>1</sup> These numbers assume that raising the threshold would not result in more activities being submitted within any increased threshold.

# ASSOCIATED IMPROVEMENTS

## Background

Up until 2015 the Transport Agency funding policy allowed a simplified approach to finding of associated improvements such as:

- minor drainage and seal width improvements carried out in conjunction with road renewals
- widening of existing seal, where this is the least-cost maintenance treatment, and
- installation of new minor traffic management equipment and facilities.

AOs, and the Transport Agency, agreed a budget for these works with evidence required to show that:

- the renewal work was necessary and the primary driver for the associated improvement being considered (as an 'opportunity cost')
- an economic efficiency evaluation to support the improvement had been undertaken, and
- the improvement's value could not exceed 20% of the total costs of the renewals.

## Today's problem

Removal of the associated improvements work category has led to difficulties in building the case for undertaking small scale improvements on the transport networks, as many are not viable when assessed as an individual project. Associated improvements encouraged the Transport Agency and AOs to consider how to optimise delivery of their capital improvements alongside their renewals works to create cost efficiencies as assets and labour were already being deployed. The associated improvements approach to funding supported an efficient and cost-effective method to consider incremental improvements to the network's level of service.

## How would we define associated improvements?

An associated improvement would be defined as:

*"Improvement activities that are completed in conjunction with pavement renewals. The renewal must be the primary reason for the works being completed"*

Associated improvements could be re-established with rule changes to better align with the Business Case Approach, Treasury requirements and the GPS. Associated improvements could be considered for:

- seal width improvements carried out in conjunction with road renewals, if the main benefit is to improve safety
- minor drainage improvements, if the improvement is necessary to mitigate the frequency and risk of closure to a level of service appropriate for its functional classification
- the installation of new minor traffic management equipment and facilities that optimise traffic flows on, or to, main arterials
- widening of existing seal where it is the least-cost maintenance treatment.

The following rules are proposed for associated improvements to ensure costs for associated improvements are manageable, they provide net positive benefits, and to ensure the renewal is the primary reason for the works being completed:

- The renewal must be the primary reason for the substantive works.
- Improvements must have positive benefits compared to their cost.
- Improvements must be charged in full to the LCLR work category.
- Improvements may exceed the \$1M threshold, however, the Transport Agency or AO, would need to remain within their allocated funding for LCLR.

- The total cost of associated works must not exceed 20% of the cost for renewals works.

Based on historical data we estimate that associated improvements, if implemented, would form \$9.8-\$15.8M or about 5-8% of the annual LCLR programme. This could increase up to a maximum of \$60-\$100M, or about 30-50% of the LCLR programme, based on 20% of expected renewals expenditure.