

<b>Subject</b>	<b>2021 version of the <i>Monetised benefits and costs manual</i> (MBCM)</b>
<b>Circulation</b>	All registered holders of the <i>Monetised benefits and costs manual</i> Local authorities Local Government New Zealand ACENZ
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## Purpose

To issue the 2021 version of the *Monetised benefits and costs manual* (MBCM).

This update to the manual is to be used for new activities seeking funding approval and requiring economic evaluation assessment for the 2021–24 National Land Transport Programme (NLTP) and future NLTPs.

## Content changes of the updated manual and supporting documentation

The MBCM was first published on August 2020 as a replacement for the Economic evaluation manual (EEM). A survey of MBCM users was run in March 2021 to evaluate to evaluate the first version (2020) of the MBCM. The survey's results show that 66% of respondents are satisfied with the MBCM compared to 43% satisfaction rate with the EEM in the 2019 survey and 69% think that the new MBCM is better than the EEM. 49% of the respondents had used mostly or only the MBCM since it was launched. Most respondents were from private business (60%)

This new version (Version 1.5), published in August 2021, includes a number of content and formatting improvements, detailed in the table below. Most significantly Chapter 2: Demand estimation and mode share and Appendix 1: Demand estimation methods and guidance have been completely updated, and content on demand estimation in Chapter 7: Sensitivity and risk has also been updated. Additionally we have updated the procedure for measurement and valuation of the impact on greenhouse gas emissions (section 3.4), and updated the full procedure worksheets and converted them into excel format (which are also available for download on the [MBCM page](#) on the Waka Kotahi website).

**Table 1: Improvements in the *Monetised benefits and costs manual 2021***

Chapter/section	Detail of the improvement
Chapter 2: Demand estimation and mode share	The whole chapter was rewritten to include the different elements of travel demand estimation, which play a more significant role in economic assessments. The updated chapter provides information and some guidance to assist with a systematic and balanced approach to demand estimation carried out as part of an economic assessment.
Section 3.4: Impact on greenhouse gas emissions	The procedure for measurement and monetisation of the impact on greenhouse gas (GHG) emissions has been updated using the Vehicle Emission Prediction Model for measurement and the whole-of-government shadow price of carbon for monetisation.
Section 3.14: Composite value for abatement of marginal congestion costs	The impact on GHG emissions has been removed from the composite values as the impact on GHG emissions now needs to be calculated and presented separately.
Section 3.15: Other monetised benefits	A subsection was added to this section to provide links to Waka Kotahi’s recently commissioned research on impacts on system vulnerability and redundancy.
Section 7.3: Demand Estimation sensitivity tests	This is a whole new section added to Chapter 7: Sensitivity and risk analysis, which relates to the updates to Chapter 2: Demand estimation and mode share.
Appendix 1: Demand estimation methods and guidance	<p>The appendix was renamed and updated to reflect the improvement to Chapter 2: Demand estimation and mode share. Chapter 2 provides background and guidance on different elements relating to travel demand estimation, while this appendix provides guidance on techniques, methods and considerations for developing demand estimates. This includes estimating and forecasting facility use by specific modes, general techniques and guidance on developing demand estimates and forecasts, guidance on traffic modelling forecasts, the specific areas of elasticity techniques and values, and evaluating congested networks (using fixed and variable matrix techniques).</p> <p>The appendix also contains guidance on developing a benefit–cost ratio after variable trip matrix methodologies have been used, and suggested checks to validate the methodology applied.</p>
Appendix 4: Vehicle operating cost tables	Tables and graphs have been converted from images to proper tables and graphs.
The whole manual and the MBCM page on the Waka Kotahi website	A <i>Transport modelling checks worksheet</i> and <i>Crash cost savings worksheet</i> are available in excel format on the MBCM webpage. References to these full procedure worksheets in the manual are linked to the relevant worksheets.
The whole document	Improving the general readability of the manual by correcting errors and providing some formatting enhancements. For example, issues in equations and references that were outlined by users have been addressed.

## Upcoming changes in 2021

There are two main areas of improvement that will be made later on in 2021. The relevant changes will be made to the 2021 version of the manual as soon as the relevant work has been completed and is available.

1. Waka Kotahi has commissioned research on investigating the values and methodologies for monetisation of non-monetised benefits included in the benefits framework. The research is under peer review at the moment. Its results, including a database of values and methodologies and a report, will be published in 2021. A link to the research results will be added to section 3.15: Other monetised benefits in the MBCM.
2. Following the improvement in the procedure for economic valuation of the impact on GHG emissions, the embedded GHG emissions value has been removed from the composite benefits, as the impact on GHG emissions should be calculated using the new procedure and reported separately. The subsequent changes to the relevant simplified procedures spreadsheets and their manual contents will be made soon after this publication.



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