

Chapter 12
Part G
VOLUME 2

Assessment Methodology

Overview

The environmental assessment undertaken for the Project has involved extensive collaborative input of a broad range of engineering, environmental, social and cultural specialists.

The Project team collaborated to identify potential adverse environmental effects of the Project along with associated measures to ensure that any such effects were appropriately avoided, remedied or mitigated and relevant Part 2 considerations addressed at the preliminary design stage.

12 Assessment Methodology

12.1 Introduction

The purpose of this Chapter is to outline how the AEE was undertaken for the Project. The structure for the remainder of Part G is also set out.

12.2 Purpose of the Assessment

Under the RMA an assessment of the environmental effects of the Project is required.

In addition to the requirements under the RMA, it is also part of the NZTA's environmental policy, and its operating principles under section 96(1)(a) of the LTMA, to:

Exhibit a sense of social and environmental responsibility, which includes -

(i) avoiding, to the extent reasonable in the circumstances, adverse effects on the environment; ...

The requirements of the RMA and the LTMA formed the basis for the AEE undertaken for the Project.

12.3 Environmental Assessments Undertaken

12.3.1 Previous Environmental Assessments

Two environmental assessments have been undertaken previously for the Project:

- A SAR prepared in 2001/2002 by Meritec for the section of SH1 between Ōtaki and Peka Peka Road. The report was presented in two parts comprising the 'Ōtaki Bypass' and 'Te Horo Expressway'. Six route options and combinations of sub-options were assessed and presented in the SAR in relation to a central route.
- A SARA prepared in May 2003, which reviewed an alternative western route.

The above reports included preliminary assessments of environmental effects related to traffic, noise and vibration, landscape, land use, social severance, and local businesses.

In preparing this AEE and the technical reports, some information from these previous assessments was considered and utilised but only where it remained relevant.

Studies undertaken in 2008 and 2009 reviewed options relating to the central corridor (referred to as the 'Eastern Route' in the SAR) and endorsed it as the preferred route. This was adopted as a preference by the NZTA Board in December 2009, subject to a range of further reviews and detailed investigations. Throughout the development of the current Project, including as a result of public consultation, there have been a range of route options put forward for further consideration and assessment. These are detailed in Chapter 9 above.

12.3.2 Environmental Assessment Undertaken for the Project

A social and environmental screen process was completed as a preliminary assessment of the Project against a checklist of potential effects commonly associated with major road projects. This checklist formed a framework for the assessment.

A further series of reports (comprising a further SARA) was then completed in January 2012 to identify options to refine the alignment of the preferred central corridor. Those experts presented the results of the following environmental assessments:

- The identification and mapping of constraints;
- A multi-criteria assessment of alternative alignment and associated interchange options; and
- Expert technical analysis across a range of disciplines.

The constraints analysis included a detailed examination of the existing environment in the wider Project area that highlighted a number of environmental factors relevant to the development and consideration of route options.

The multi-criteria assessment involved the application of non-cost and cost-related criteria¹⁸ to the Project options identified in order to assess their relative environmental and other effects. The outcome of this process was the confirmation of a preferred alignment along with a preliminary indication of its potential environmental effects. These potential effects, in turn, were subsequently assessed in more detail by various experts through the AEE process, the results of which are reported in various Technical Reports (refer Volume 3: Technical Reports and Supporting Documents) and summarised in this Part G, Chapters 13 to 29 of the AEE report.

12.3.3 Assessment Methodology

The close working relationship between the Project designers (i.e. the engineering teams) and the environmental assessment teams for the Project has resulted in a high level of integration between the design and mitigation processes.

In general terms, the approach has been:

- To modify the design of the Project to avoid or reduce potential adverse effects;
- Where avoidance of adverse effects was not considered feasible (due to other Project objectives), to develop measures to appropriately remedy and/or mitigate potential adverse effects; and
- Where mitigation and/or remediation is required, to co-ordinate development of measures between specialists to promote optimal environmental outcomes.

Specific details about how particular potential adverse environmental effects are proposed to be managed are provided in Part H, Chapters 30 to 32 of the AEE.

12.3.4 KCDC Involvement

KCDC has been involved during the Project design process and has provided input on options and mitigation measures identified. This has been particularly important because the KCDC acts in the following capacities:

- It is the relevant territorial regulatory authority; and

¹⁸ Non-cost criteria included transport outcomes, social/community outcomes and environmental outcomes.

- It is the owner and controlling authority for the local roads that will connect to the Project, including the existing SH1 once the revocation process is completed.

KCDC has been involved in the identification and mapping of constraints, in the multi-criteria assessment and at various other stages of the alternatives assessment process, as well as throughout the various consultation processes and, as necessary, as the experts have assessed the effects of the Project and developed mitigation measures.

12.3.5 Stakeholder Involvement

A range of stakeholders has been involved in the AEE development process. In addition to KCDC, key stakeholders for this Project are KiwiRail (as well as being a joint applicant), GWRC, NZHPT and Nga Hapū o Ōtaki.

Part F of the AEE contains a description of the methods used to engage stakeholders. In general terms, stakeholders and individuals provided feedback to the Project team on how they believed the Project would affect their interests. The engagement undertaken with the various stakeholders is discussed throughout the topic Chapters in Part G as relevant.

12.3.6 Structure of the Assessment

Chapters in Part G describe the assessments undertaken for each potential environmental effect, addressed by topic. For convenience, each assessment topic is described in a separate Chapter, although interactions between topic areas are recognised and discussed where relevant. The topic chapters and the relevant technical reports are shown in Table 12-1.

Each Chapter provides a summary of the key potential effects and the mitigation proposed. The Project incorporates measures that will create positive benefits. The Project will also give rise to significant benefits which are discussed in the various Chapters as relevant.

Further information about each assessment, including the methodology used, is contained in the relevant technical report in Volume 3.

The basic structure for each Chapter is:

- A description of the existing environment (in greater detail than that provided in Chapter 5, as relevant to the assessment matter);
- A description of the potential effects (both positive and adverse) resulting from the Project; and
- A description of what measures have been undertaken, or are proposed to be undertaken, to avoid, remedy or mitigate potential adverse effects.

Table 12-1: Environmental Effects Assessment Topics

AEE report chapter	Topic	Relevant Technical Report No.
13	Traffic and transport	6
14	Geotechnical engineering and resilience	4
15	Urban form and function	7
16	Landscape and visual	8
17	Hydrology	9
18	Stormwater	10
19	Terrestrial ecology	11
20	Aquatic ecology	12
21	Air quality	13
22	Noise and vibration	14 and 15
23	Land contamination	16
24	Archaeology	17
25	Built heritage	18
26	Tangata whenua and cultural heritage	19
27	Social	20
28	Economic	21
29	Land acquisition and property	N/A

Part H, Chapters 31 to 33, sets out the framework by which effects (as identified throughout Part G) will be managed and mitigated, including through conditions of the designation and resource consents. It also outlines the relationships between the recommended mitigation and proposed management plans.