

10. ASSESSMENT METHODOLOGY

Overview

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

The Project team worked together to identify the potential adverse and positive environmental effects of the Project. This included developing associated measures to ensure that any such effects are appropriately avoided, remedied or mitigated. Relevant Part 2 considerations of the RMA have also been addressed.

10.1. Introduction

The purpose of this chapter is to outline how the AEE was undertaken for the Project and how previous environmental assessment work has been used. The structure for the remainder of the effects assessment is also presented.

10.2. Purpose of the assessment

The primary purpose of the assessment is to meet the statutory requirements of the RMA. The RMA requires that an assessment of environmental effects be carried out for the proposed activity.

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 assessment of effects undertaken for the Project.

10.3. Environmental assessment undertaken for this Project

The environmental assessment carried out for this Project included the following interrelated processes:

- the identification and mapping of constraints;
- an assessment of alternative route, 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. This process highlighted a number of environmental factors relevant to the development and consideration of Project options.

The options assessment involved the application of cost and non-cost⁶⁶ related criteria. The outcome of this process was the confirmation of a preferred alignment along with a preliminary indication of its potential environmental impact. These potential environmental impacts, in turn, were subsequently assessed in more detail by various experts through the AEE preparation process. The results of these specialist assessments are reported in various Technical Reports and presented in this AEE.

10.4. Previous environmental assessments

A number of earlier environmental assessments were undertaken prior to the completion of the detailed technical reports which support this AEE. These included:

- AEE for CSM1 in 2008;
- SWAP in 2009;
- Strategic Study for CSM2 that was completed in 2009; and
- Scoping Report for MSRFL that was completed in 2011.

In preparing this AEE, information from these earlier environmental assessments was considered and used where it remained relevant. It is noted that the Scoping Report and the development of the current technical reports involved iterative studies that informed and shaped the development of the Project.

10.5. Assessment methodology

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

The iterative and dynamic nature of this process means that it is virtually impossible to satisfactorily document all outcomes from this process entirely in this AEE. However, where key design changes were made based on their likely environmental effects, these changes have been described either in the Consideration of Alternatives (Chapter 7) or within a specific topic assessment.

In general terms, the approach has been:

- to modify the design of the Project to avoid, or reduce to the extent practicable, potential adverse effects;

⁶⁶ Non-cost related criteria include movement, built environment, cultural/heritage, natural environment, social /community and economic, while the cost related criteria include actual costs and the benefit/cost ratio.

- where avoidance of adverse effects was not possible, to develop measures to adequately remedy and/or mitigate potential adverse effects; and
- where mitigation and/or remediation is required, to co-ordinate development of measures between specialists as much as possible to promote optimal environmental outcomes.

Specific details about how particular potential adverse environmental effects are proposed to be managed are provided in each of the remaining chapters within this part of the AEE (Part G). They are also summarised in Chapter 27 (Mitigation and Monitoring) of this AEE.

In addition to the collaborative and integrated manner of assessment, there are other aspects of the AEE process worthy of note. These are the establishment of the Project Advisory Group (PAG) and direct local authority involvement with authors of the specialist reports, and other stakeholder involvement.

10.5.1. Local authority involvement

Local authority involvement from ECan, SDC and CCC has been a key part of the environmental assessment process. The local authorities have been involved in three key capacities:

- as regulatory authorities;
- as asset and infrastructure owners and / or providers; and
- as owners of land that is required for the Project (freehold land and land vested as local road).

In their roles as members of the PAG, the relevant local authorities have been closely involved in shaping the Project and providing input on identified options and mitigation measures (for details of the PAG, refer to Section 8.10 of this AEE).

Project Technical working subgroups were formed from within the PAG. The purpose of the technical working groups was to work through key technical aspects of the proposal, and to seek agreement where possible on key areas of difference between the NZTA, ECan, SDC and CCC. The PAG and technical working subgroups provided valuable feedback that assisted the development of the Project in an integrated manner that considered potential impacts from the outset.

The involvement of local authorities has been discussed in Chapter 8 (Consultation and Engagement). In their capacity as regulatory authorities (through the SAAG) the local authorities have provided advice on district and regional planning provisions and other regulatory matters of relevance to the AEE assessment process and will be responsible for monitoring and enforcement of any conditions.

As asset and infrastructure owners, and / or providers⁶⁷ the local authorities have provided feedback on the potential effects of the Project on their assets and how these effects could be

⁶⁷ Also, local roads constructed as part of Project may be vested in the local authorities to maintain.

mitigated, where required. Similarly, in the instance where the local authority is a landowner, they have advised on land use and property effects.

10.5.2. Stakeholder involvement

In addition to local authorities, a wide range of stakeholders were involved in the AEE process in a number of different capacities. The consultation undertaken with these stakeholders is set out in Chapter 8 (Consultation and Engagement).

In general terms, stakeholders provided feedback on how they believed the Project would affect them or the interests their organisations represented. Consultation undertaken with various stakeholders is discussed in Chapter 8 and throughout the topic chapters in this AEE as and where it is relevant.

10.6. Structure of the assessment

Chapters 11 to 26 of this AEE provide an assessment of the identified environmental effects for this Project. This assessment captures the effects identified in specialist reports (for different topics). 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 (found in Volume 3 of the AEE), are shown in Table 15.

Table 15: Relevant technical reports

AEE report chapter	Topic	Relevant technical report number
11	Traffic and transport	2
12	Property and land use	-
13	Network utilities	-
14	Urban Form and function	5
15	Landscape and visual	1, 4, 5 and 7
16	Lighting	19
17	Noise and vibration	8 and 9
18	Air Quality	10
19	Terrestrial and freshwater ecology	17 and 18
20	Stormwater and groundwater	3

AEE report chapter	Topic	Relevant technical report number
21	Natural hazards	3 and 11
22	Contamination	16
23	Cultural impacts	NA
24	Archaeology and built heritage	12
25	Economic	14
26	Social	13

Each chapter provides a summary of the key potential effects and the topic-related mitigation recommended in the specialist reports and adopted by the NZTA. Further information about the assessment, including the assessment methodology used, is contained in the relevant technical report.

The basic structure for each assessment topic is:

- a description of the existing environment (where greater detail is needed to provide context to the assessment, than was provided in Chapter 3);
- a description of the potential effects (both positive and adverse) resulting from the Project; and
- a description of what measures have been included in the design of the Project, or are recommended to be undertaken, to avoid, remedy or mitigate potential adverse effects that have been identified.

Chapter 27 (Mitigation and Monitoring) summarises how the NZTA will respond to the recommended mitigation (as identified throughout Chapters 11 to 26). It also outlines the relationships between the mitigation to be adopted by the NZTA and the proposed management plans. Chapters 30 and 31 provide the NZTA’s proposed conditions for the designation and resource consents as a key method which is proposed to mitigate potential adverse effects.