



NZ TRANSPORT AGENCY
WAKAKOTAHI

Peka Peka to North Ōtaki Expressway Project

**DRAFT Construction Environmental
Management Plan**

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Contents

1	Background	9
1.1	Introduction	9
1.2	Purpose of the CEMP	10
1.3	Construction Environmental Management Plan	11
1.4	Management Plans.....	12
1.4.1	Draft Erosion & Sediment Control Plan.....	12
1.4.2	Draft Ecological Management Plan.....	13
1.4.3	Draft Bulk Earthworks Contaminated Land Management Plan	13
1.4.4	Draft Construction Air Quality Management Plan.....	14
1.4.5	Draft Construction Noise & Vibration Management Plan	14
1.4.6	Draft Landscape Plan	14
1.4.7	Draft Construction Traffic Management Plan.....	14
1.4.8	Draft Accidental Discovery Protocol	15
1.5	Site Specific Environmental Management Plans	15
1.6	Management Plan Certification Process	16
1.7	Assessment of Environmental Effects	17
1.8	Update of CEMP	18
1.9	Project Description	19
1.9.1	Section 1 – Ōtaki North through to Ōtaki River Bridge Ch0000 to Ch3500	20
1.9.2	Section 2 – Ōtaki River Bridge to Old Hautere Road Ch3500 to Ch5250	21
1.9.3	Section 3 – Old Hautere Road to Te Horo Ch5250 to Ch8600	21
1.9.4	Section 4 – Te Horo to Peka Peka Interchange Ch8600 to Ch12250	21
1.9.5	Project Stages	21
1.10	Environmental Policy	22
1.11	Environmental Objectives / Key Performance Indicators.....	23
2	Social and Environmental Management.....	24
2.1	Environmental Aspects	24
2.1.1	Environmental Aspects Register.....	24
2.1.2	Process	24
2.1.3	Review of the Register.....	25
2.2	Legislative Requirements	25
2.2.1	National Legal Requirements and Policies.....	25
2.2.2	Project Approvals	26
2.2.3	The NZTA Consent Compliance Management System.....	26
3	Implementation and Operation.....	27
3.1	Structure and Responsibility.....	27
3.2	Training	31
3.3	Environmental Management	31

3.3.1	Introduction	31
3.3.2	Construction Methodology and Programme	32
3.4	Operating Procedures	33
3.4.1	Communications Procedures	33
3.4.2	KiwiRail Safety/Operational Procedures	35
3.4.3	Transition Phase	35
3.5	Emergency Contracts and Response	36
4	Monitoring and Review	38
4.1	Compliance Monitoring	38
4.1.1	Consent and Designation Monitoring	38
4.2	CEMP Audits	39
4.2.1	Audits	39
4.2.2	Review	39
4.2.3	Compliance	39
4.2.4	Mechanism for Revision	39
4.2.5	Reporting	40
4.2.6	Reviews	40
4.2.7	Communications	40
4.2.8	Training Records	40
4.2.9	NZTA Monitoring and Review	40
4.2.10	NZTA Environmental Reporting	41
4.3	Corrective Actions	41
4.3.1	Incident / Accident Investigation	41
4.3.2	Preventative Action	41
4.4	Management Review	42
	Appendix A: Draft Construction Noise & Vibration Management Plan	43
	Appendix B: Draft Construction Air Quality Management Plan	44
	Appendix C: Draft Erosion & Sediment Control Plan	45
	Appendix D: Draft Bulk Earthworks Contaminated Land Management Plan	46
	Appendix E: Draft Ecological Management and Monitoring Plan	47
	Appendix F: Draft Landscape Plan	48
	Appendix G: Draft Construction Traffic Management Plan	49
	Appendix H: Draft Site Specific Management Plan – Central Ōtaki	50
	Appendix I: Draft Site Specific Management Plan – Mary Crest	51
	Appendix J: Draft Accidental Discovery Protocol	52
	Appendix K: NZTA Environmental Objectives	56
	Appendix L: Environmental Risk Register	58
	Appendix M: Sample Inquiries & Complaints Register	59
	Appendix N: Sample Weekly Environmental Inspection Checklist	61

List of Abbreviations

ADP	Accidental Discovery Protocol
AEE	Assessment of Environmental Effects
BECLMP	Bulk Earthworks Contaminated Land Management Plan
CAQMP	Construction Air Quality Management Plan
CNVMP	Construction Noise and Vibration Management Plan
CRG	Community Reference Group
CEMP	Construction Environmental Management Plan
CTMP	Construction Traffic Management Plan
DoC	Department of Conservation
EMP	Ecological Management Plan
EPA	Environmental Protection Agency
ESCP	Erosion and Sediment Control Management Plan
HPT	Historical Places Trust
KCDC	Kāpiti Coast District Council
LMP	Landscape Management Plan
NIMT	North Island Main Trunk Line
NOR	Notice of Requirement
NUMP	Network Utilities Management Plan
NZTA	New Zealand Transport Agency
OFI	Opportunity for Improvement
OMC	Operations and Management Consultant
RMA	Resource Management Act 1991
RoNS	Roads of National Significance
SH1	State Highway 1
SSEMP	Site Specific Environmental Management Plans
ULDF	Urban and Landscape Design Framework

Preface

This Construction Environmental Management Plan (CEMP) is provided in draft form to demonstrate the content and outline the structure of the final CEMP.

This version of the CEMP has been developed as part of the materials lodged by the Transport Agency (NZTA) and KiwiRail with the Environmental Protection Agency (EPA) in support of the Notices of Requirement (NOR) and Resource Consent Applications.

It demonstrates how the NZTA, KiwiRail and their appointed contractor will manage the construction project to ensure the project meets all required regulatory and policy requirements. The Erosion and Sediment Control, Ecological and Bulk Earthworks Contaminated Land Management Plans will be certified by Greater Wellington Regional Council (GWRC), while the Construction Air Quality, Construction Noise and Vibration, Construction traffic and Landscape management Plans will be submitted to Kāpiti Coast District Council (KCDC) as part of the Outline Plan process.

The final CEMP will be completed prior to the start of the construction of the Peka Peka to North Ōtaki Expressway Project by the appointed Contractor.

It should be noted that the final CEMP will be a working document, updated by the Contractor on a regular basis to reflect changes in construction methodology and to ensure the CEMP remains fit for purpose.¹

Details of the actual and potential environmental effects arising from construction and how these will be mitigated will be demonstrated to the EPA through the Assessment of Environmental Effects (AEE) and specialist mitigation plans developed by thematic specialists.

¹ The CEMP is described as a “working” document in the sense that it may be updated, even after it has been ‘finalised’ and reviewed by the relevant Councils, so that it remains fit-for-purpose. Any such updates to the document would be limited solely to changes that preserve or enhance, from an environmental point of view, the measures used to address particular effects. “

1 Background

1.1 Introduction

This Draft Construction and Environmental Management Plan (CEMP) is for the Peka Peka to North Ōtaki Expressway Project (the Project). The Project comprises the Peka Peka to Ōtaki section of the Kāpiti Expressway and a re-aligned section of the North Island Main Trunk (NIMT) railway through Ōtaki. The purpose of the CEMP is to provide the framework, methods and tools for how environmental effects of the Project will be managed, remedied or mitigated during construction, in order to meet resource consent and designation conditions, relevant legislation and the New Zealand Transport Agency (NZTA) and KiwiRail environmental objectives.

This project is one of eight sections of the Wellington Northern Corridor Roads of National Significance (RoNS) which runs from Wellington Airport to Levin. The location of the project in the overall scheme of this corridor is illustrated in Figure 1 below.

This section of the Expressway will consist of two lanes of traffic in each direction. Connections to local roads, new local roads and access points over the Expressway to maintain safe connectivity between the western and eastern sides of the Expressway are also proposed as part of the project. The project also includes an additional crossing of the Ōtaki River along with crossings of other watercourses throughout the project length. The project will also affect streams, air and land along the through route. Effects on these resources are managed by Greater Wellington Regional Council (GWRC).

The environmental practices and management controls to be adopted by the Project will be set out in a series of management plans. The management plan framework adopted for the Project implements the standards and limits set out by the conditions and the management plans will clearly show how these conditions will be implemented.

- The first tier in the framework is this draft CEMP which is a high level ‘umbrella’ document containing overarching principles;
- The second tier are the management plans (discussed in section 1.4) that are applied site-wide, setting out how design criteria and performance standards will be met; and
- The third tier are the SSEMPs (discussed in section 1.5) that provide detailed design, monitoring details and environmental management and describe how the Project will be built.

This draft CEMP describes the environmental management system to be applied to the construction of the Project to support the NZTA and KiwiRail’s applications to the Environmental Protection Authority (EPA) to obtain resource consents, and their Notices of Requirement (NOR) for designations.



Figure 1: Location of Peka Peka to North Ōtaki expressway within the Wellington Northern Corridor

1.2 Purpose of the CEMP

The purpose of this CEMP is to ensure the project meets the conditions and requirements of the resource consents and designations, relevant legislation and the NZTA's environmental objectives. The CEMP establishes the framework of management plans and protocols for implementation during the Project's construction.

The final CEMP to be submitted by the Contractor will outline all details required to enable the NZTA, KiwiRail and the Contractor to undertake construction works whilst ensuring these works meet the appropriate environmental standards. Overall, the implementation of the CEMP will manage:

- Compliance with the conditions of resource consents and designations;
- Compliance with appropriate legislation;
- The requirements of Section 176A of the RMA (outline plan) for construction of the Project;
- Adherence to the NZTA's and KiwiRail's environmental objectives; and
- Environmental risks associated with the Project.

1.3 Construction Environmental Management Plan

The CEMP is the first tier in the environmental management framework for the Project which is shown in Figure 2 . It is a high level plan intended as an ‘umbrella’ document containing overarching principles and an overall staging programme. The CEMP defines details of the “who, what, where, when and how” of the environmental management and mitigation measures that are to be implemented. It covers all anticipated construction elements and presents a framework of principles, environmental policy, objectives and performance standards as well as processes for implementing good environmental management. This CEMP establishes the relationship with the related environmental Management Plans and Site Specific Environmental Management Plans (SSEMPs).

The principles and general approach to managing the actual and potential environmental effects are set out in the main body of the CEMP. The management of specific effects (e.g. construction air quality, noise, vibration etc.) will be detailed within a suite of environmental Management Plans.

The proposed designation and consent conditions that require the preparation of this CEMP also need to provide flexibility to review and modify practices according to changing circumstances. Making sure the CEMP is current and relevant is critical to its successful implementation. The CEMP and management plans may require further review and amendment during the life of the project to reflect changes to activities, risks, mitigation measures, responsibilities and management processes (known as adaptive management). The ability to makes changes to the CEMP is an important aspect of continually improving its effectiveness.

The NZTA will work with the selected contractors to develop further and finalise the CEMP once the consents and designations are obtained, as part of the process of finalising detailed design and construction methods.

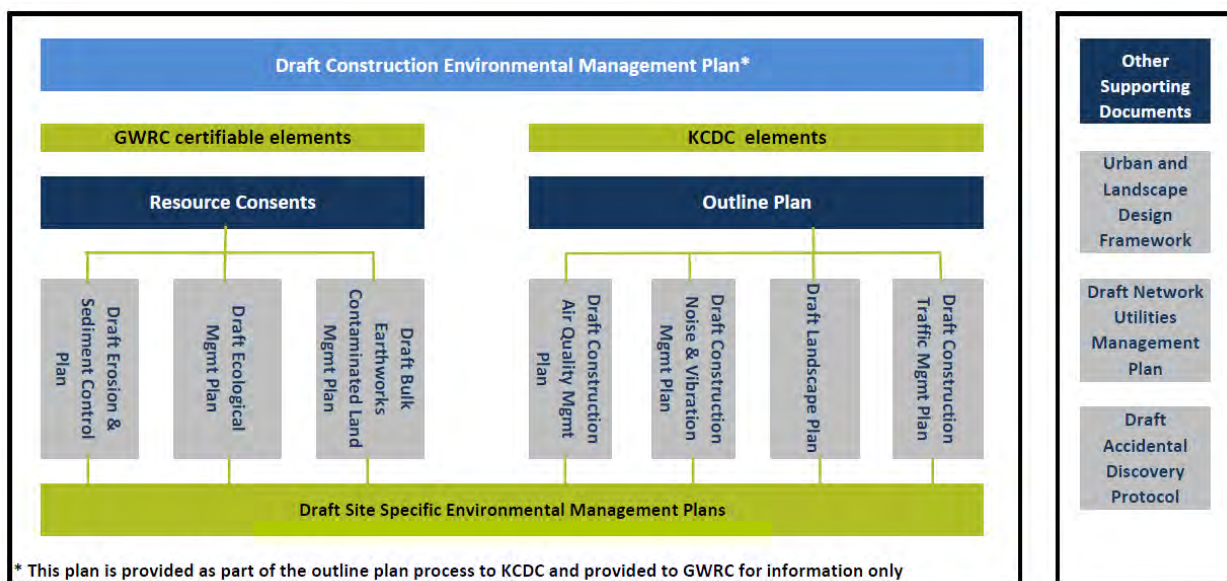


Figure 2: Relationship between Management Plans prepared for the Construction Phase

1.4 Management Plans

The Management Plans are the next tier of plans to manage environmental effects. They set out the environmental management approach and provide principles that are applied site-wide, setting out how design criteria and performance standards will be met. Figure 2 outlines the structure of the CEMP and identifies the relationships between the CEMP and Management Plans. The Management Plans bring together the principles of the CEMP and focus on specific effects, for example the management of construction noise and vibration.

The suite of Management Plans comprises:

- Draft Erosion and Sediment Control Plan;
- Draft Ecological Management Plan;
- Draft Bulk Earthworks and Contaminated Land Management Plan;
- Draft Construction Air Quality Management Plan;
- Draft Construction Noise and Vibration Management Plan;
- Draft Landscape Management Plan; and
- Draft Construction Traffic Management Plan.

These plans will all be ‘live’ documents and will be updated and revised as the construction methodology, regulatory environment and requirements for managing the various effects change over time and will reflect changes to activities, risks, mitigation measures, responsibilities and management processes. This reflects the fact that the construction methodology cannot be fully confirmed until the detailed design is completed, a Contractor appointed and detailed construction planning commences.²

The ability to make changes to the CEMP and Management Plans is an important aspect of continually improving the effectiveness of the CEMP making sure it remains fit for purpose. The Contractor will be required to undertake all construction activities on site in accordance with the provisions of the CEMP, relevant Management Plans and resource consent and designation conditions.

1.4.1 Draft Erosion & Sediment Control Plan

The purpose of the Erosion and Sediment Control Plan (E&SCP) is to demonstrate the Erosion and Sediment Control (E&SC) principles and methodologies that will be adopted during the construction phase of this Project to minimise adverse environmental effects due to land disturbing activities. The final version of the CEMP and E&SCP will be developed by the Contractor on award of the physical works contract and prior to construction.

The principles outlined in the CEMP and E&SCP will be used by the Contractor to inform development of Site Specific Environmental Management Plans (SSEMPs), which will detail actual practices and mitigation for site specific work areas

² The management plans are described as a “working” documents in the sense that they may be updated, even after being ‘finalised’ and reviewed by the relevant Councils, so that they remain fit-for-purpose. Any such updates to the documents would be limited solely to changes that preserve or enhance, from an environmental point of view, the measures used to address particular effects.

1.4.2 Draft Ecological Management Plan

The Draft Ecological Management Plan (EMP) addresses all aspects of the Project's ecological management initiatives so consent agencies, design engineers, and contractors know how the ecological effects of the Project will be measured and managed.

In addition, ecological input will be important in the development of Site Specific Environmental Management Plans (SSEMPs). The monitoring component of this plan includes qualitative and quantitative monitoring of the effects of construction phase activities on the terrestrial and freshwater ecosystems within the wider Project area. The focus of the monitoring is to identify potential adverse environmental effects from construction and to trigger implementation of appropriate systems and controls to avoid, remedy or mitigate these effects.

The Draft EMP will be updated throughout the course of the Project to reflect material changes associated with changes to construction techniques or the natural environment.

The Draft EMP recommends the following guidelines:

- Areas of stream that are affected by culvert installation and temporary diversion to be block-netted upstream and downstream to keep fish out of the affected area;
- Discharge of construction materials and waste into storm drains or other pipes that discharge to stream channels to be prevented or minimised;
- Procedures to be put in place for preventing and cleaning-up contaminant spills before they reach waterways;
- BMPs for transport, storage and handling of petroleum products, paints, solvents, lubricants, cement, road aggregate and other construction materials and construction wastes to be applied;
- BMPs for sanitary waste facilities and collection to be applied;
- BMPs for construction vehicle fuelling, washing and maintenance to be applied;
- Contaminated soils (both pre-existing and construction related) to be removed or treated to prevent transport to streams;
- Work on stream banks and in channels to be minimised during periods of heavy rain;
- Paving and other operations that can produce contaminated run-off to be minimised during periods of heavy rain;
- Contaminated and/or sediment-laden water from dewatering operations to be treated before discharge to streams, or removed from the construction area; and
- Temporary channel-crossing structures (fords, culverts, bridges) to be designed to minimise erosion and impedance of flow. These structures are to be inspected after heavy rains and flow events for accumulations of debris, culvert blockage, channel scour, and bank erosion or failure. Maintenance of crossing structures will be undertaken by the contractor during construction. NZTA will have a global consent in place for on-going network maintenance as part of the operation of the SH network.

1.4.3 Draft Bulk Earthworks Contaminated Land Management Plan

The Draft Bulk Earthworks Contaminated Land Management Plan (BECLMP) addresses the potential adverse environmental effects resulting from contaminated soil and land at selected locations associated with the construction of the Project.

The principal purpose of this Plan is to highlight the minimum standards that must be complied with, as well as best practicable options for management of contaminated soil and land for the Project. It is intended as a robust framework which, once fully developed, will guide contractors on how to manage contaminated soil and land at selected locations on site to minimise effects on health and safety and to reduce the impact on the environment. The Draft BECLMP will be updated, with the necessary approval, throughout the course of the Project to account for changes to construction techniques or the natural environment and consent conditions.

1.4.4 Draft Construction Air Quality Management Plan

The Draft Construction Air Quality Management Plan (CAQMP) addresses the potential construction air quality impacts associated with earthworks and construction activities of the Project. The purpose of this document is to facilitate the avoidance, remediation and mitigation of any adverse effects of discharges of dust generated from the construction activities, and to promote proactive solutions to the control of dust discharges from the site. It also focusses on the protection of human health and amenity values from the effects of dust (and odour) discharges.

1.4.5 Draft Construction Noise & Vibration Management Plan

The Draft Construction Noise and Vibration Management Plan (CNVMP) details noise limits, predicted levels, mitigation measures, monitoring requirements, and communication and complaint procedures.

The Draft CNVMP identifies the noise and vibration performance standards that must, where practicable, be complied with. It also sets out best practicable options for noise and vibration management for the Project. This CNVMP is intended as a framework for the development and implementation of particular noise and vibration management and control methodologies to minimise adverse effects on health and safety of residents and to reduce the adverse impact on the environment.

The Draft CNVMP will be updated, with the necessary approvals, throughout the course of the Project to reflect material changes associated with any changes to the construction methodologies or techniques or the natural environment. The document shall be reviewed annually to ensure that any changes are reflected.

The document will be implemented in accordance with information, management tools and standards as specified by the NZTA.

1.4.6 Draft Landscape Plan

The Draft Landscape Plan is detailed in the landscape plans in Volume 5, and sets out the intent of the project landscape outcomes and in conjunction with the Urban Landscape and Design Framework (Technical Report 23, Volume 3) will inform and guide the detailed design and implementation.

1.4.7 Draft Construction Traffic Management Plan

The Draft Construction Traffic Management Plan (CTMP) outlines procedures, requirements and standards necessary for managing the traffic effects of construction arising from the Project.

The document identifies the minimum standards necessary for management of traffic control on the Project. This plan also outlines procedures for proposed departures from those minimum standards. It is intended as a framework for the development of particular traffic management practices and procedures to minimise effects on health and safety and to reduce the impact on the environment.

1.4.8 Draft Accidental Discovery Protocol

The Accidental Discovery Protocol (ADP) will govern the accidental discovery of cultural or archaeological artefacts. The ADP shall be prepared in consultation with Nga Hapu Otaki and shall provide for tikanga to be appropriately observed where discoveries are made.

The relationship between the designation and resource consent conditions, the CEMP and the above plans is shown in Figure 2. Each Management Plan will be appended to the CEMP to form the overall construction environmental management system.

Upon completion of the Expressway, the NZTA will utilise an Asset Owner's Manual in accordance with NZTA's Minimum Standard Z/15 to manage environmental aspects of the operation and maintenance of the asset.

1.5 Site Specific Environmental Management Plans

The final tier in managing environmental effects are the Site Specific Environmental Management Plans (SSEMPs). The purpose of the SSEMPs is to demonstrate the application of the methodologies and principles outlined in all the sub plans of the CEMP and provide confidence that the works can be constructed in such a manner as to ensure that environmental matters are appropriately managed. The SSEMPs provide a practical demonstration of how the Project will be built and will be developed for specific site areas, or activities and will demonstrate how the relevant Management Plans have been applied for construction in the area concerned.

The site-specific methodology for environmental management during construction will not be known until the final design and site investigations are completed, and detailed information is obtained on exactly how construction of the Project will be staged and progressed. The SSEMPs will be lodged and certified as construction progresses, prior to the commencement of the relevant stage of work. The methodology to be used at each phase of construction will need to be consistent with the general methodology certified within the relevant Management Plan within the CEMP. If, for some reason, a change in methodology is necessitated, then the relevant Management Plan will need to be revised and any changes certified in accordance with the certification process.

The SSEMPs are not part of this CEMP, as they will need to be lodged in a staged process over the course of construction prior to the works in the specific area. While the overarching methodology, procedures and principles are set out in the certified Management Plans, the SSEMPs are focused on specific work areas and, in line with an adaptive management approach, they may need to be revised as construction progresses due to unforeseen events such as adverse weather or unexpected site conditions.

Two indicative SSEMPs have been prepared for the consenting phase of this project to demonstrate how the CEMP will be applied during construction. The site specific examples chosen for the indicative SSEMPs are as follows:

- Central Ōtaki: including the Railway Wetland and the Pare-o-Matangi Reserve; and
- Mary Crest cut (refer USLE evaluation and section 6.6)

These focus areas were chosen as they contain potentially sensitive areas, and between them have the full range of environmental management issues likely to be encountered during the construction of the Project. In total there will be at least 9 SSEMPs will be developed by the Contractor and will be lodged and certified as construction progresses, prior to the commencement of the next stage of work. The final number will be developed in conjunction with the contractor, GWRC and KCDC.

1.6 Management Plan Certification Process

Each Management Plan developed under the CEMP will need to be certified by GWRC who hold the appropriate RMA functional and consenting responsibilities. The Management Plans contain Project-specific methodology for avoiding, remedying or mitigating the actual and potential adverse effects arising from the construction of the Project.

GWRC will be responsible for certifying the following Management Plans:

- Erosion and Sediment Control Plan
- Ecological Management Plan
- Bulk Earthworks Contaminated Land Management Plan

As part of the Outline Plan process, the following management plans will be submitted to KCDC (but will not be certified):

- Construction Air Quality Management Plan
- Construction Noise & Vibration Management Plan
- Landscape Plan
- Construction Traffic Management Plan

It is acknowledged that aspects of some management plans will have a secondary purpose or benefit, and will be of interest to both GWRC and KCDC. Therefore it is intended that both KCDC and GWRC will be consulted during the preparation of the relevant management plan, prior to the lodgement of the management plan for certification (or as part of the Outline Plan process, as the case may be).

It is proposed that the final draft Management Plans will be lodged together to the relevant certifying authority at least 15 working days before the commencement of work on the Expressway. The purpose of lodging all certifiable elements at the same time is to ensure the local authority is able to consider all plans on an integrated basis.

The SSEMPs will be lodged and certified as construction progresses. The methodology to be used at each construction sector will need to be consistent with the general methodology certified with the relevant

Management Plan contained within the CEMP, however they will also need to be revised if required as construction proceeds (for example, due to weather conditions or unexpected site conditions).

In addition to the management plans that would require certification as part of the CEMP, there are a number of other plans and supporting documents that form part of the overall framework for managing the final design and construction of the Project:

- Urban and Landscape Design Framework (Section 1.3.8);
- Network Utilities Management Plan (Section 1.3.9); and
- Accidental Discovery Protocol (Section 1.3.10).

1.7 Assessment of Environmental Effects

The CEMP is consistent with, and complements the the Project’s AEE. The AEE technical assessment reports and final consent conditions will inform the development of the final CEMP, and Management Plans.

Table 1 outlines how the technical assessment reports relate to each management plan.

Management Plan	Technical Assessment Report Inputs
CEMP	<ul style="list-style-type: none"> • Assessment of Effects on the Environment: Part H, proposed designation and resource consent conditions • Assessment of Land Contamination Effects • Consultation Summary Report and Communications Plan
Draft Construction Noise & Vibration Management Plan	<ul style="list-style-type: none"> • Construction Noise and Vibration Assessment • Operational Noise and Vibration Assessment
Draft Construction Air Quality Management Plan	<ul style="list-style-type: none"> • Assessment of Air Quality Effects
Draft Erosion and Sediment Control Plan	<ul style="list-style-type: none"> • Assessment of Stormwater Effects • Assessment of Geotechnical Characteristics (including soils)
Draft Construction Traffic Management Plan	<ul style="list-style-type: none"> • Integrated Transport Assessment
Draft Ecological Management Plan	<ul style="list-style-type: none"> • Terrestrial Ecology Report • Aquatic Ecology Report
Draft Landscape Plan	<ul style="list-style-type: none"> • Landscape and Visual Assessment • Urban and Landscape Design Framework
Draft Accidental Discovery Protocol	<ul style="list-style-type: none"> • Assessment of Built Historic Heritage Effects • Cultural Impact Assessment • Assessment of Archaeological Effects

Table 1: Management Plan Relationship to Technical Assessment Reports

1.8 Update of CEMP

The CEMP will be updated after the consenting process to:

- Incorporate any conditions attached to the designations and Resource Consents;
- Address the construction methodology once the construction Contractor has been appointed; and
- Reflect the responsibilities of each party once the contract type has been determined.

The information and timing of updates is illustrated in the Table 2 below:

CEMP Section	Information to be Updated	When
1.8 Environmental Objectives / KPIs	Confirm Environmental Objectives and KPIs	Following approval of NORs and resource consents
2.1.1 Environmental Aspects Register	Complete Environmental Aspects Register	By Contractor prior to construction works commencing
2.2.2 Project Approvals	Table 2 1 : Compliance with RMA requirements and Table 2 2 : CEMP Compliance with non RMA legislation	Following approval of NORs and resource consents
3.1 Structure and Responsibility	Management roles under the CEMP. Complete Table 3 1 : Preliminary Roles and Responsibilities	Following confirmation of procurement option for the project
3.3.1 Environmental Management	Identification of environmental management areas	Following approval of NOR and resource consents
3.3.2 Construction methodology and programme	Construction methodology	Following appointment of contractor
4.1.1 Consent and Designation Monitoring	Monitoring requirements (consent and designation conditions)	Following approval of NOR and resource consents

Table 2: Key Sections of the CEMP to be Updates

1.9 Project Description

The NZTA and KiwiRail are seeking resource consents and confirmation of NORs under the RMA to authorise the construction, operation and maintenance of the Project. There will be one NOR by the NZTA and one by KiwiRail. The NZTA is also seeking all the necessary resource consents required under Regional Plans to construct operate and maintain all components of the Project.

The proposed expressway includes 4-lanes from the northern extent of the Peka Peka interchange ramps (being developed by the MacKay's to Peka Peka (M2PP) project, through to an interface with the existing State Highway 1 (SH1) north of Ōtaki, near Taylors Road, a distance of approximately 13.5km.

A half interchange (with a local road bridge) will be provided north and south of Ōtaki, together with further local road bridge connections at Rahui Road and Te Horo. A new section of local arterial will be constructed south of Mary Crest (as the expressway alignment will sit on the location of the existing SH1).

The Project includes realignment of a section of the NIMT, approximately 1.2km long through Ōtaki, together with re-construction and re-orientation of the Ōtaki Railway platform and station building (part of Section 1).

In order to adequately describe the physical works, this construction methodology has considered the proposed Expressway as being managed as 4 separate construction Sections:

- Section 1 – Ōtaki North through to Ōtaki River Bridge Ch0000 to Ch3500
- Section 2 – Ōtaki River Bridge to Old Hautere Road Ch3500 to Ch5250
- Section 3 – Old Hautere Road to Te Horo Ch5250 to Ch8600
- Section 4 – Te Horo to Peka Peka Interchange Ch8600 to Ch12250

Based on the current design, these Sections are shown in Figure 3 opposite and described in Table 3.



Figure 3: Construction Sections

	Section 1	Section 2	Section 3	Section 4
Description	Ōtaki North through to Ōtaki River Bridge Expressway and NIMT realignment	Ōtaki River Bridge to Old Hautere Road	Old Hautere Road to Te Horo	Te Horo to Peka Peka Interchange
Start and finish chainages	0000 to 3500 (3.5KM)	3500 to 5250 (1.75KM)	5250 to 8600 (3.35KM)	8600 to 12250 (3.65KM)
Bridges	Bridge 1 Waitohu Stream Bridge (work within the stream) Bridge 2 (note: this is the local road over expressway bridge) Bridge 3 (note: this is the local road over rail bridge) Bridge 4 Rahui Road Underpass (local road over Expressway)	Bridge 5 Ōtaki River Bridge (twin bridges, work within the river) Bridge 6 (note: this is the South Ōtaki Interchange over expressway bridge) Bridge 7 (note: this is the South Ōtaki Interchange over rail bridge)	Bridge 8 Te Horo SH1 Underpass (local road over Expressway)	Bridge 9, SH1 Mary Rail Bridge (Expressway over rail)

Table 3: Likely Construction Sections

1.9.1 Section 1 – Ōtaki North through to Ōtaki River Bridge Ch0000 to Ch3500

Based on the current design, this Section is approximately 3.5km long and extends from the tie-in at SH1 in North Ōtaki to the Ōtaki River. Four bridges will be constructed within the Section and the NIMT rail line will be relocated over a length of approximately 1.2km, along with re-siting of the Ōtaki Railway Station.

There are approximately 270,000m³ of earthworks cut materials for expressway construction available within this Section. Two lanes of expressway are provided in each direction, a gateway entrance into Ōtaki from the north and a northbound onramp from Ōtaki is provided.

The NIMT is relocated from County Road to sit west of the new Expressway.

Environmental work within the railway wetland area and landscaping of the Pare-o-Matangi Reserve are also included.

1.9.2 Section 2 – Ōtaki River Bridge to Old Hautere Road Ch3500 to Ch5250

Based on the current design, this Section is approximately 1.75km long and extends from the north side of Ōtaki River through to Old Hautere Road. Three bridges will be constructed within the section.

Within this Section, Ōtaki South Interchange will provide separation of the local and expressway traffic and includes south-facing ramps for access into Ōtaki and from Ōtaki southbound. Old Hautere Road extension to Ōtaki Gorge Road and the existing SH1 alignment maintains local connectivity.

There is approx. 290,000m³ of fill material available between Ch3900 to Ch5250 primarily for transport and re-use south along the expressway alignment.

1.9.3 Section 3 – Old Hautere Road to Te Horo Ch5250 to Ch8600

Based on the current design, this Section is approximately 3.35km long and two lanes of expressway are provided in each direction. Outside of the expressway construction the key tasks in Section 3 are the extension of Gear Road to School Road and the extension of School Road, across Bridge 8 Te Horo SH1 Underpass, connecting to Te Horo Beach Road.

One Bridge is constructed in this Section, maintaining connectivity between communities either side of the NIMT railway line and expressway.

Within Section 3 there is a shortfall of earthworks fill material requiring approx. 57,000m³ of imported material for the Bridge No8 embankments and Expressway alignment between Ch5250 and Ch8600.

1.9.4 Section 4 – Te Horo to Peka Peka Interchange Ch8600 to Ch12250

Based on the current design, this Section is approximately 3.65km long, providing two lanes of expressway in each direction, connecting to the Peka Peka Interchange. The key tasks in Section 4 are the construction of the new arterial road to the west of the Expressway alignment for the temporary diversion of SH1 from Peka Peka Interchange to the existing SH1 north of Mary Crest. This is necessary as the existing SH1 must have traffic removed to enable the new Expressway construction to proceed. Following construction this becomes a local arterial.

One bridge is constructed in this Section, taking the new expressway over the NIMT and providing connectivity for local traffic.

Within Section 4 there is a shortfall of earthworks fill material requiring approx. 280,000m³ of imported material from Section 1 and 2 and approx. 45,000m³ of imported fill. Significant ground improvements will be carried out prior to bulk earthworks and bridge construction.

1.9.5 Project Stages

After regulatory approvals are secured and detailed design is completed, the Project will involve three main stages:

- 1. Construction:** The construction stage of the Project will occur across a number of fronts to enable separate elements to be undertaken concurrently. Monitoring of compliance with

conditions of all consents and designations held by the NZTA will be entered into the Projects CS-VUE project file which will be managed by an MSQA Consultant (described further in Section 3.1) and KiwiRail's compliance monitoring system. This CEMP has been prepared, and will be updated for the construction stage.

- 2. Transition:** The transition stage is the crossover period between the construction and operational stages of the Project whereby the responsibility for the management of the environment is transferred from the construction contractor(s) to the network operator. During this stage the construction contractor(s) will be required to work with the NZTA, KiwiRail and KCDC in finalising the construction and meet any post-construction resource consent and designation conditions before the Project is passed to NZTA's Operations and Management Consultant (OMC), KiwiRail and KCDC. The transition stage also provides for the transfer of information on conditions which remain operative (such as long term environmental monitoring). Any NZTA resource consents and designations with components still operative will be managed in NZTA's CS-VUE project file. KiwiRail will be responsible for the compliance with the designation and associated conditions issued in their name.
- 3. Operation:** The NZTA and KiwiRail will use their existing operational maintenance and management methods to manage environmental aspects of the operation and maintenance of the asset.

1.10 Environmental Policy

To ensure effective environmental management during the construction phase of the Project, the NZTA's policy framework for environmental management on projects has been assessed and incorporated into this CEMP.

NZTA's Environmental and Social Responsibility Policy is set out in the NZTA Statement of intent 2012–2015 and states:

"We promote an accessible and safe transport system that contributes positively to New Zealand's economic, social and environmental welfare, and we are committed to acting in an environmentally and socially responsible manner.

We are committed to:

- *protecting and enhancing the natural, cultural and built environment*
- *enhancing the quality of life for New Zealanders by improving community liveability including land transport safety*
- *taking appropriate account of the principles of the Treaty of Waitangi*
- *providing meaningful and transparent engagement with stakeholders, customers and the general public*
- *providing customer-focused services that are fair, trusted and efficient.*

To implement our policy we will:

- *promote the safe and efficient movement of goods and people in a manner that avoids, to the extent reasonable in the circumstances, adverse environmental and social impacts*

- *continuously improve performance in the management of environmental and social impacts*
- *integrate good urban design into all our activities*
- *work to improve our knowledge and understanding of the extent and condition of New Zealand's environmental and cultural heritage assets*
- *maintain and improve opportunities for Maori to contribute to our decision making processes*
- *actively and meaningfully engage with affected and interested persons and organisations*
- *identify and comply with all relevant environmental and social legislation and regulations*
- *seek whole of life value for money by taking into account environmental and social costs and benefits when procuring goods and services*
- *provide our employees with the skills, awareness and leadership to achieve environmental and social objectives.*

We have described aspects of our approach in more detail, including our Environmental Plan that guides the Highways and Network Operations Group and our action plan for the New Zealand Urban Design Protocol, to which we are a signatory."

1.11 Environmental Objectives / Key Performance Indicators

In addition to its statutory objectives, the NZTA has developed a number of specific environmental objectives in order to improve its environmental performance. These objectives are set out within the NZTA's *Environmental Plan: Improving Environmental Sustainability and Public Health in New Zealand*.

Objectives and key performance indicators are provided in the NZTA *Environmental Plan* for each environmental aspect including noise, air quality, water resources, erosion and sediment control, social responsibility, culture and heritage, ecological resources, spill response and contamination, resource efficiency, climate change, visual quality and vibration.

Environmental management methods set out in this CEMP will remain consistent with the relevant objectives and policies in the NZTA's *Environmental Plan*, which are listed in Appendix K

2 Social and Environmental Management

2.1 Environmental Aspects

As part of the management of significant risks and opportunities associated with the Project, an Environmental Aspects Register will be developed by the Contractor. The register will identify potential significant environmental benefits that may be able to be created and managed during construction, for example, providing sites for ecological mitigation. The register will also identify significant risks. The register will develop from information contained within the AEE prepared for the Project.

2.1.1 Environmental Aspects Register

A template for a draft Environmental Risk Register is attached as Appendix D. The Risk Register is a live document which will be updated during the detailed design phase and referred to by staff. As construction progresses the risk register will be reviewed and updated appropriately.

Construction risks and hazards will be identified by the Contractor, and a ranking assigned along with the intention to eliminate, isolate or minimise the risk. Finally, mitigation measures will be prepared for each environmental risk. These will also be compiled by the Contractor once detailed design is completed and construction planning is underway.

2.1.2 Process

The Environmental Aspects Register will be prepared and maintained using the following process:

- All Project activities will be described including subcontractor, suppliers and ancillary works such as materials transported to or from site and site establishment;
- Actual and potential environmental impacts associated with each activity will be identified;
- Significant potential environmental impacts will be identified using the NZTA Risk Assessment³ methodology; and
- This information will inform the design of environmental management activities, controls and monitoring to prevent or minimise those environmental impacts appropriately.

The function of the risk assessment is to translate the AEE and conditions of designations and consents into actual construction techniques.

The environmental risk analysis process is outlined in the NZTA document “Risk Management Process Manual” (2004) which is consistent with the New Zealand Standard AS/NZS 4360:2004 Risk Management. The risk analysis is based on an index formed from perceived likelihood of an occurrence and the subsequent consequence of that occurrence (how much harm it would cause). Likelihood and consequence are given a rating and a description. The overall risk score and category (ranging from negligible to extreme) is calculated from Tables A, B and C in Appendix B of the “Risk Management Process Manual” (2004).

³ NZTA Risk Management Process Manual Version 3, September 2004

2.1.3 Review of the Register

The Environmental Manager (roles and responsibilities are defined in Section 3.1) will be required to maintain and review the Environmental Aspects Register. The risk assessment results will be reviewed at regular intervals and will be repeated at critical times within the Project, such as prior to commencement of construction (taking into account finalised construction methodologies), when there is a new or changed activity, equipment or location of activities or when there is a change to legislative or consent and designation requirements. The Register will be reviewed on a monthly basis as part of the CEMP audit and review.

The Environmental Manager, with the assistance of environmental and technical experts, will determine whether the CEMP and Management Plans require revision to reflect the revised risk assessment. The Contractor will be responsible for obtaining approvals required (if any) prior to commencing any new or changed activities.

The Environmental Manager will inform the Site Manager, relevant staff, Project Manager and management team of any changes to the Environmental Aspects Register. The Contractor will include any variations to the register within the weekly report to the Project Manager.

2.2 Legislative Requirements

This CEMP has been produced to outline the framework for how the Project will manage environmental effects during construction and give effect to the relevant policies, plans and resource consent and designations conditions that must be addressed in the construction and operation of this project. Once the preferred design and construction team is selected for detailed design, the legislative requirements of the CEMP will be finalised.

2.2.1 National Legal Requirements and Policies

Construction of the Project must comply with a range of national legislation, regulations, strategies and policies in order to effectively provide for the management of environmental effects. Key documents, national environmental legislation and regulations relevant to the NZTA and the Project are provided below:

- Resource Management Act 1991;
- Land Transport Management Act 2003;
- Hazardous Substances and New Organisms Act 1996;
- Dangerous Goods Act 1974 and Regulations;
- Protected Objects Act 1975 for the relevant archaeological and heritage standards/practices;
- Historic Places Act, 1993;
- New Zealand Coastal Policy Statement 2010
- Government Policy Statement on Land Transport Funding 2009/10 – 2018/19 (GPS);
- National Environmental Standard – Air Quality 2004 (NES: AQ);
- Reserves Act 1977;
- Public Works Act 1981;
- Wildlife Act 1953;

- Freshwater Fisheries Regulations 1997;
- National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health; and
- National Policy Statement for Freshwater Management 2011.

2.2.2 Project Approvals

Table 4 indicates the content of the CEMP to the corresponding conditions of the resource consents, designation and Permitted Activities. This table demonstrates compliance with these conditions.

Relevant resource consent/ designation/ Permitted Activity Conditions	Corresponding element of the CEMP

Table 4: Compliance with RMA requirements

TABLE DELIBERATELY BLANK – Table will be completed for final version of CEMP

Other than under the RMA, approvals under other legislation are also required. Approvals are required under the following legislation:

- Historic Places Act 1993 section 12 authorisations

Table 5 provides a cross reference to each section of the CEMP in order to demonstrate compliance with the conditions under each of these approvals:

Legislation	Relevant conditions	Corresponding element of the CEMP
Historic Places Act 1993		Accidental Discovery Protocol

Table 5: CEMP Compliance with non RMA legislation

2.2.3 The NZTA Consent Compliance Management System

CS-VUE™ is a legal compliance system adopted by the NZTA to manage environmental statutory requirements. It is the NZTA’s contractual requirement that CS-VUE™ is used to track and record the compliance of the following legal obligations:

- Resource consents;

- Designation conditions;
- Department of Conservation concessions;
- Historic Places Act authorities; and
- Any other agreements or obligations which have compliance conditions.

CS-VUE™ is a secure database which matches each consent and condition (or other legal obligation) with a consent manager and condition manager and automatically sends an email notifying them of compliance requirements. The Consent Manager is the NZTA Project Manager who is responsible for overseeing consent compliance management, and the condition manager is the project MSQA consultant who is responsible for ensuring day-to-day compliance.

Evidence to demonstrate compliance is entered in CS-VUE™ with all entries/changes annotated with the person's name and date who undertook the changes. Post-construction, the responsibility of any conditions which have on-going maintenance and operational requirements will be transferred to the NZTA Asset Manager.

3 Implementation and Operation

3.1 Structure and Responsibility

The final management roles for the construction of the Project will be based around the following roles:

- Project Manager;
- Design Manager;
- Construction Manager;
- Environmental Manager and/or Planning Manager;
- Stakeholder Relationship/Communications Manager; and
- Site supervisor/Project Engineer.

These roles will be confirmed once the contract type has been confirmed.

Depending on the Contractor's proposed team structure, a combination of these roles may be able to be combined, so long as the following principles are able to be maintained:

- Accountability for all environmental management responsibilities ultimately rests with the Project Manager; and
- The Environmental and/or Planning Manager's roles provide a clear management structure for monitoring consents. If required, the roles can be merged into one, and delegation of responsibilities can be passed to other roles if appropriate. For example, the Contractor may choose to employ an Erosion and Sediment Control Manager who may have responsibility for implementing and monitoring the conditions of consent around sediment control.

The key management roles from each organisation in relation to environmental management during the construction of the Project are outlined below: **[CONTRACTOR TO INSERT ORGANISATION CHART HERE]**

Organisation	Role	Responsibilities
NZTA	Consent Holder and Engineer to the Contract	<ul style="list-style-type: none"> ▪ Compliance with the RMA and with any condition of the designations and resource consents; ▪ Applications for alterations to the designations or resource consents or applications for new resource consents and designations and renewal of expired resource consents;
Kāpiti Coast District Council	Environmental Representative	<ul style="list-style-type: none"> ▪ Review of Contractors' site specific environmental management plans, and relevant Management Plans.
Main Contractor	Project Manager Environmental and/or Planning Manager Construction Manager Stakeholder relationship/Communications Manager	<ul style="list-style-type: none"> ▪ Overall responsibility for site environmental management; ▪ Reviewing and reporting on environmental performance; ▪ Outline Plan of Works and other RMA approvals; ▪ Inspections, auditing and checking of environmental management practices and procedures; ▪ Report to the NZTA changes to construction techniques or natural environmental changes which require alterations to the consents/ designations or new resource consents and designations; ▪ Facilitate and oversee environmental monitoring; ▪ Update and maintain the Environmental Aspects Register; ▪ Prepare, review and update of specific SSEMP's and relevant Management Plans; ▪ Inspection of works to assess compliance with the CEMP and Management Plans; ▪ Training of all staff including sub-contractors ▪ Maintain Complaints, Incidents and Non Compliance forms;
Sub-Contractors	Construction Manager	<ul style="list-style-type: none"> ▪ Adherence to the Management Plans; ▪ Preparation/variation of specific SSEMP's and relevant Management Plans as required.
MSQA Consultant	MSQA	<ul style="list-style-type: none"> ▪ On-site compliance with resource consent and designation conditions and other requirements and tracking compliance information on CS-VUE.
Local Authorities	Consent Manager	<ul style="list-style-type: none"> ▪ Commenting on specific SSEMP's and Management Plans. ▪ Auditing to assess whether the resource consent and designation conditions are being complied with.

Table 6: Preliminary Roles and Responsibilities

Key roles of personnel as they relate to environmental management during the construction of the Project are detailed below. Roles and responsibilities of personnel who will implement specific environmental controls and programmes (such as the contaminated land expert, erosion and sediment control advisor, archaeologist) are detailed in the relevant Management Plans.

All Staff

- Attending tool-box talks and environmental training including familiarisation with the requirements of the CEMP and Management Plans (as directed by the Environmental Manager);
- Responsible for reporting environmental incidents, complaints, defects and other problem areas to senior staff as they arise on site;
- Ensuring that required processes and procedures for environmental management are followed;

- Ensuring that environmental mitigation and protection measures are maintained and working correctly; and
- Within day to day work responsibilities, act responsibly in accordance with the requirements of the CEMP in order to protect the environment both on site and adjacent to the site.

Project Manager

- Takes ultimate responsibility for delivery of the Project, and therefore compliance with conditions of resource consents and designations;
- Approves Management Plans and SSEMPs; and
- Provides adequate resources to manage environmental issues and obligations.

Design Manager

- Incorporates environmental requirements into design as required by the consent and designation conditions, the CEMP and Management Plans; and
- Advises Environmental Manager of any design issues that may impact on the environment.

Construction Manager(s)

- Reviews work packages against the CEMP to achieve a high level of performance;
- Develops, implements and monitors construction methods ensuring compliance with consents and designations and CEMP and Management Plans;
- Coordinates environmental interfaces with consultants, subcontractors and suppliers;
- Demonstrates understanding of major environmental and community issues and environmentally sensitive areas;
- Implements environmental protection measures in accordance with the contract and the CEMP and Management Plans;
- Trains all workers in relation to environmental measures;
- Briefs all workers and others (e.g. subcontractors and suppliers) about environmental operating procedures and community relations protocols.

Environmental Manager / Planning Manager

- Provides leadership to motivate staff to achieve environmental standards, and comply with all resource consent and designation conditions;
- Develops, implements and reviews environmental management systems including the CEMP and Management Plans for the Project;
- Co-ordinates the interfaces and communications with external agencies and stakeholders in relation to environmental management on the Project in conjunction with the Stakeholder Relationship/ Communications Manager;
- Manages and co-ordinates compliance with all consents and designation conditions and any other statutory approvals required;
- Construction monitoring and maintaining/submitting relevant reports and records to the consent authority and the NZTA, as required;

- Notifies the Project Manager and the Consent Authority, Historic Places Trust and/or the Department of Conservation of any environmental non-compliances for which they have jurisdiction;
- Responsible for resolving issues of environmental non-compliances;
- Undertakes regular site inspections and audits for compliance with the CEMP and Management Plans and Resource consent and designation conditions;
- Inputs all environmental monitoring results to a CS-VUE database;
- Coordinates all site monitoring including but not limited to dust, noise, and vibration monitoring and provides necessary related training and advice to staff in relation to this monitoring;
- Trains staff in site specific environmental procedures;
- Coordinates environmental emergency responses;
- Coordinates the preparation of erosion and sediment control plans and preparation of as-built information that is timely and applicable to the consent conditions;
- Manages maintenance and monitoring of the effectiveness of erosion and sediment controls, stormwater devices and other control devices; and
- Makes sure spill kits are available and stocked and provides training on equipment use.

Project Engineers

- Provides leadership to the site team to achieve the Project's environmental objectives and targets;
- Responsible for ensuring environmental controls and erosion and sediment control works are installed, modified and maintained as appropriate for each stage of construction;
- Assists in the development, implementation and review of the Project's environmental objectives; and
- Makes sure staff onsite are aware of environmental requirements at all times and sees that routine maintenance to erosion and sediment control facilities and management measures continue with ongoing effectiveness.

Stakeholder Relationship/Communications Manager

- Coordinates interfaces with external agencies and stakeholders ensuring all contract commitments and relevant resource consents and designation conditions are met;
- Responsible for notifying residents of works occurring within the near vicinity and managing mitigation as required;
- Disseminates information to the public as approved by the NZTA and KiwiRail; and
- Primary contact for Project-related complaints and enquiries.

The NZTA Environmental Representative

- Non-compliance reporting to the Consent Authorities in a timely manner;
- Reviews CEMP and Management Plans, Complaints Register, Incidents and Emergency Register, Non-Compliance;
- Report, Environmental Performance Report;
- Meets monthly with the Environmental Manager and Site Manager to discuss non-compliance, complaints, incidents and emergencies, monitoring, auditing and review of the CEMP and Management Plans; and

- Reports to the NZTA and KiwiRail Project Manager.

MSQA Consultant

- Oversees the Environmental Manager's use of CS-VUE.
- Independent site audits to ensure environmental compliance.
- Quality assurance and liaison with consenting authorities.

3.2 Training

All personnel will be required to be appropriately qualified and/or trained for their particular role. The following systems will be implemented to manage environmental matters on site:

- Inductions;
- Project briefing;
- Job Safety and Environmental Analysis (JSEA)
- On the job training;
- Tool box talks; and
- Posters and information leaflets.

Environmental training records will be maintained and made accessible and will be documented in an Environmental Report. The Environmental Report will document all matters required for environmental reporting as outlined in Section 4.2.5. The records will include:

- Who was trained;
- When the person was trained; and
- General description of training content and whether follow up/refresher courses are required at a later date.

Further detail about the Environmental Report is given in Section 4.2.5.

3.3 Environmental Management

3.3.1 Introduction

SSEMPs demonstrate the application of the methodologies and principles outlined in all the management plans of the CEMP, and provide confidence that the works can be constructed in such a manner as to ensure that environmental matters are appropriately managed. The site-specific methodology for environmental management during construction will not be known until the final design and site investigations are completed, and detailed information is obtained on exactly how construction of the Project will be staged and progressed.

The SSEMPs are focused on specific work areas and, in line with an adaptive management approach, they may need to be revised as construction progresses due to unforeseen events such

The SSEMPs will be lodged and certified as construction progresses, prior to the commencement of the relevant stage of work. Two indicative SSEMPs have been prepared for the consenting phase of this project to demonstrate how the CEMP will be applied during construction. The site specific examples chosen for the indicative SSEMPs are as follows:

- Central Ōtaki: including the Railway Wetland and the Pare-o-Matangi Reserve;
- Mary Crest cut (refer USLE evaluation and section 6.6)

As part of the CEMP, general management activities, standards, procedures and practices will be developed in detail by the Contractor. All generic management activities of relevance to the whole Project will need to meet the conditions of the designations and resource consents.

Generic activities that will be managed are:

- Environmental Controls for Refuelling and Maintenance;
- Sealing and Road Surfaces;
- Waste Management;
- Dewatering;
- Environmental Emergency Response;
- Haul and Access Roads;
- Water Collection;
- Stockpiling;
- Tree Felling and Vegetation Clearance;
- Pest management;
- Fire control;
- Severe Weather Events; and
- Hazardous Substance Use, Handling and Storage.

Detailed Management Plans will address the following issues (as illustrated in Figure 1):

- Erosion and sediment control;
- Ecological mitigation;
- Landscape mitigation;
- Traffic management;
- Construction noise and vibration; and
- Air quality management.

3.3.2 Construction Methodology and Programme

The construction of the Project will occur across a number of work fronts simultaneously, and the AEE and the proposed consent and designation conditions have been devised to enable this. Key construction activities associated with the Project include the construction of new roads, new

railway lines, earthworks, stream crossings, construction of bridges, landscape and noise mitigation. A fully detailed programme of works and staging will be provided when the final CEMP is completed by the Contractor.

Due to the lineal extent of the Project, a series of site construction compounds will be required along the alignment to accommodate and service works at various stages during the construction programme. The extent of establishment will vary depending on the proposed type of each compound, i.e. the main Contractors' compound or local construction compound. The general purpose of each compound type will be outlined in this section and will be adopted by the Contractor.

Construction offices are anticipated to be located at:

- Section 1 – Main Contractors compound between ex-SH1 and Expressway ch3200 to ch3400 access from SH1. Local bridge construction offices at Bridge 1, Bridge 2, Bridge 4;
- Section 2 – Local construction office at Bridge 6, access from Ōtaki Gorge Road;
- Section 3 – Local construction office at Bridge 8, access from School Road; and
- Section 4 – Local construction office at Te Hapua Road, access from Te Hapua Road.

3.4 Operating Procedures

Operating procedures will be established within the CEMP to ensure the Project stays within the environmental and social objectives and requirements as set out within the CEMP. Communication procedures will be key in ensuring the CEMP is implemented and the environmental and social objectives and requirements are met.

3.4.1 Communications Procedures

A dedicated Stakeholder Relationship/Communications Manager will be appointed for the construction phase of the Project, who will manage all public consultation, engagement, enquiries and complaints. The following procedures will be developed for engaging with the public:

- All enquires/complaints received by telephone will be forwarded directly to the Stakeholder Relationship/Communications Manager who will determine the appropriate person to respond to the request;
- All enquires/complaints will be managed through an online complaints register, which can be regularly updated. The structure for the register is outlined in Appendix F; and
- All enquires/complaints addressing issues that form part of Management Plans will also be housed in the register. However, in addition to the above register, all noise complaints in relation to the Main Alignment will also be registered in the NZTA Online Noise Complaints Register, as outlined in the Construction Noise and Vibration Management Plan (CNVMP).

Enquires/complaints details will include:

- Full name of the caller (if they are willing to provide it);
- Time/date of call;

- Detailed outline of the call; and
- Timeframe required to close out the complaint/enquiry.

3.4.1.1 Communications Register

A Communications Register will be kept for the Project, electronically. All enquiries and complaints will be logged. Responses to the questions will be tracked and closed out within an agreed timeframe between the respondent and the NZTA and KiwiRail.

3.4.1.2 Consultation

During construction, consultation with affected parties may be required for:

- Accidental discovery of archaeological artefacts;
- Construction Noise and Vibration; and
- A revised construction methodology due to unforeseen physical constraints.

3.4.1.2.1 Accidental Discovery Protocols

An archaeological and heritage assessment of the route was undertaken to identify any possible artefacts and heritage resources that may be affected by construction activities along the alignment. The investigation has not identified any sites that will be directly affected by the Project. However, a pre-construction archaeological survey will also take place and an Accidental Discovery Protocol (ADP) will remain in place during the construction of the Project. A draft ADP is outlined in Appendix G.

Any consultation required will need to comply with the NZTA's Communications Plan for the Project (which is required as a condition of the designation).

3.4.1.2.2 Construction Noise and Vibration

There will be targeted consultation with individual property owners located within close proximity to the site. It is noted that this is a requirement of the Construction Noise and Vibration Management Plan when noisy works are proposed close to people.

3.4.1.3 Communications

The impacts of the Project, especially from construction, will be noticeable for the local communities which the Project will interface. Open, two-way communication will be provided to keep the community informed about what is happening in their neighbourhood.

A general communications strategy will be developed and will include the following mechanisms to communicate with the general public:

3.4.1.3.1 Website

Information on the project will be available on the NZTA Peka Peka to North Ōtaki Expressway Project website.

The website will be updated frequently by the Stakeholder Relationship/Communications Manager and will provide details on construction, contact details, consultation processes, and frequently asked questions.

3.4.1.3.2 24hr 0800 Number

A 0800 contact number will be set up prior to construction to field any calls relating to the Project. This is an important avenue for stakeholders and members of the public to communicate with the NZTA/KiwiRail and contractor. All calls will be recorded electronically, identifying all feedback (both positive and negative), issues that need to be addressed and other enquiries.

3.4.1.3.3 Mail Drops

During and prior to key stages of construction, targeted mail drops will outline and forewarn the public of construction activity within their area, and provide information on the progress of the Project. The contact details of the Stakeholder Relationship/Communications Manager's will be included.

3.4.1.3.4 Brochures and Billboards

Brochures and flyers on the Project will be readily accessible to the public. There will also be billboards positioned around the site, which will include the name, telephone number, and address for service of the Site and Project Manager as well as the Stakeholder Relationship/Communications Manager.

3.4.1.3.5 Community Reference Group

A Community Reference Group (CRG) will be set up at least 2 months prior to the commencement of construction for the purpose of communicating with the community. The CRG members will be chosen from a wide cross section of the community (including from community groups and interest groups) and will be responsible for assisting to disseminate information out into the community.

3.4.1.3.6 E-Newsletter

The Project Team will provide a regular bulletin, advising stakeholders and interested parties on Project updates and news. It is anticipated that this will take the form of an e-newsletter, to which anyone can subscribe.

3.4.1.3.7 Media Coverage

In addition to advertising in the local press, in selected publications and through other media, the Stakeholder Relationship/Communications Manager will provide regular updates to the media and encourage regular editorial updates through print, television and radio channels.

3.4.2 KiwiRail Safety/Operational Procedures.

As a major stakeholder, KiwiRail's safety and operational requirements will also form a significant part of the management for this project. The final CEMP will need to fully align with KiwiRail's National Rail System Standards (NRSS) and Policies.

3.4.3 Transition Phase

The transition phase is the crossover period between the construction and operational phases of the Project whereby the responsibility for the management of the environment is transferred from the construction contractor to the network operators. During this phase the construction

contractor(s) will be required to work with the NZTA, KiwiRail, GWRC and KCDC in finalising the construction and meeting any post-construction resource consent and designation conditions.

The transition phase also provides for the transfer of information in relation to consent and designation conditions which remain operative (such as long term monitoring), and historical results of environmental management and monitoring that are pertinent to effective ongoing management of the environment. Consents and designation conditions still operative are to be entered into the OMC's CS-VUE permit file and managed by the OMC. NZTA environmental information transferred to the OMC includes:

- Landscape design and as-builts;
- Agreements between key stakeholders (e.g., DoC, landowners);
- Information on environmentally sensitive areas;
- Location of contaminated land and/or fill;
- Monitoring requirements;
- Historical monitoring results;
- Results of audits and inspections in relation to environmental risks that were identified as significant in the risk assessment process; and
- A report on consent and designation conditions that have been closed out on CS-VUE.

This information is to be collated by the MSQA Consultant following the completion of construction works. In addition, this information will be included in the asset owner's manual (prepared in accordance with the NZTA's Standard Professional Services Guideline PSG/15) and operations and maintenance manuals prepared by the Contractor and handed to the relevant OMC.

3.5 Emergency Contracts and Response

In the event of a non-compliance with a resource consent or designation condition, other statutory approval or other regulatory requirements, and if an incident occurs that results in a significant adverse environmental effect, the following shall occur:

1. Immediate action will be taken to stabilise the situation (i.e. cease work, turn off or move machinery, deploy spill equipment). All spills shall be contained, recovered and disposed of appropriately;
2. The Contractor shall contact the relevant Council within 24 hours, or sooner if appropriate to the situation (for example, a significant oil spill);
3. Any affected parties shall be contacted as soon as possible if an incident occurs that may affect any land outside of the Project area;
4. All steps necessary to mitigate the incident shall be taken. Other external agencies shall be contacted where appropriate; and

5. An incident report shall be prepared that shall include, as a minimum:
- A Description and location of the incident/ non-compliance;
 - The likely cause of the incident/ non-compliance;
 - Potential or actual effects of the incident/ non-compliance;
 - Mitigation and remedial action taken;
 - Preventive action / changes to prevent a re-occurrence of the incident/ non-compliance;
 - and
 - Monitoring results.

4 Monitoring and Review

4.1 Compliance Monitoring

Environmental monitoring of the Project will primarily be based around the monitoring of:

- Erosion and sediment controls;
- Water quality;
- Dust / air quality;
- Noise and vibration;
- Hazardous substances; and
- General construction management.

Monitoring of these effects (both positive and adverse) will provide an immediate picture to all parties of the progress of the Project, scale of potential effects, and mitigation employed.

Monitoring will be based on two levels depending on the Management Plans and will align with conditions:

- **Construction monitoring Level 1:**

Scheduled Operational Monitoring – Regular periodic monitoring to be undertaken prior to and during the construction period.

- **Construction monitoring Level 2:**

Triggered monitoring – Monitoring to be undertaken when certain environmental conditions or incidents are encountered.

Monitoring will be carried out principally by the Contractor.

4.1.1 Consent and Designation Monitoring

All consent and designation conditions for the NZTA and KiwiRail will be managed through CS-VUE. CS-VUE is an online monitoring system, which houses all of the NZTA's consents and designations for the State Highway network. For construction of the Main Alignment and Link Roads associated with the Project all consents and designations will be managed through the CS-VUE compliance management system as per Section 2.2.3.

In terms of monitoring of the consents, key consent monitoring requirements are identified in the conditions in Volume 2, Part H, Chapters 31 and 32.

The key methods for monitoring and measurement to confirm compliance with consent and designation conditions are:

4.1.1.1 Routine walkovers

Routine walkovers will be undertaken by Environmental Manager and Project Engineers to assess environmental performance on site. During walkovers they will liaise with other team members and check that appropriate controls are in place and procedures

implemented. Any non-conformances, non-compliances and opportunities for improvement identified during walkovers will be recorded and actioned.

4.1.1.2 Weekly Inspections

The Environmental Manager will initiate comprehensive weekly inspections of the site to assess on-going environmental performance and compliance and identify enhancement opportunities. Inspection findings will be recorded within a Site Environmental Inspection Checklist. An example checklist is included in Appendix H. These inspection checklists will be discussed at Environmental Team meetings.

4.2 CEMP Audits

4.2.1 Audits

The Environmental Manager will undertake monthly audits of compliance with the CEMP. These will include a review of site documentation, records and an inspection of site activities. Based upon the findings of these audits the Environmental Manager will develop a report identifying non-compliances, improvements and opportunities for enhancements and specifying agreed corrective actions.

4.2.2 Review

The Environmental Manager will, as a minimum, undertake a quarterly review of the CEMP in order to identify any required amendments. A review will also be undertaken in the event of significant changes to activities on site or in response to certain incidents. The findings of the review and proposals for amendments to the CEMP will be circulated to key team members (e.g. Project Manager, Design Manager, Construction Manager, Environmental/Planning Manager). If appropriate, findings relating to compliance with consent and designation conditions will be communicated to regulatory authorities.

4.2.3 Compliance

The Environmental Manager will undertake system audits on a monthly basis and will report back to the Project Manager on performance. In addition, the MSQA Consultant will undertake periodic audits of the management of the Project in order to assess compliance with NZTA SM030 Z/4 Contractor's Social and Environmental Management Plan specification requirements.

4.2.4 Mechanism for Revision

There are two main reasons for changing the CEMP after it has been made final. These are:

- As a result of regular reviews made during the life cycle of the project which will ensure the CSEMP remains fit for purpose and continues to meet social, environmental and regulatory requirements.
- If there has been a significant change in the construction methodology or activities undertaken on the site.

Any change made to the CEMP will need to comply with all of the necessary social and environmental requirements of the Project, including the conditions of the consent and designations granted in respect to this Project. The NZTA and KiwiRail anticipate that the altered CEMP will be submitted to the relevant regulatory authorities for confirmation of compliance.

4.2.5 Reporting

Records will take a number of forms including:

4.2.5.1 Monitoring Data

Data collated from monitoring activities will be stored in a document management system for the Project and will be available online and in hard copy on the Project website.

4.2.5.2 Inspection Records

As set out in Section 4.1.1 above, a number of activities will be regularly inspected. For each inspection a checklist or form will be completed to provide a written report of findings. These will be reviewed during site meetings and project audits.

4.2.6 Reviews

Audit activities will provide a review of overall CEMP performance.

4.2.7 Communications

All internal and external communications relating to environmental performance, including any complaints, will be collated and maintained as outlined in Section 3.4.1.

4.2.8 Training Records

In order to demonstrate that all site personnel have received appropriate training, records will be made available. These records will be regularly reviewed to identify further training requirements.

Finally, a CEMP review report will be generated and submitted to inform relevant parties of environmental performance on the Project. This report shall be completed by the Environmental Manager, who will produce a monthly Management Review Report, based on the findings of the CEMP Audit, to be submitted to the Project Manager. This report will contribute to a regular management review of the effectiveness of the CEMP.

4.2.9 NZTA Monitoring and Review

Following construction of the route, all monitoring of conditions of consents and designations for the NZTA will be managed through the CS-VUE compliance management system. Handover of responsibilities for enforcing compliance with operational consents and designations conditions will be given to the NZTA Area Engineer and will be managed by the NZTA Network Management Consultant.

All resource consents and designation conditions will be separated out to reflect on going responsibilities between the NZTA, KiwiRail and KCDC. It will then be their responsibility to operate their assessed and undertaking any monitoring required.

4.2.10 NZTA Environmental Reporting

All environmental reporting associated with the Project will be completed as required by the conditions of the resource consents and designations. Other than providing any compliance reporting to regulatory authorities, performance related to compliance with consents and designations will be reported on through the OMC's monthly report to the NZTA.

4.3 Corrective Actions

The identification, reporting and rectification of environmental effects will be promoted at tool box and site inductions. System deficiencies identified during audits will be documented and rectified within agreed timeframes. Work practice deficiencies or non-compliance with site rules identified at any time during the works will be recorded in Hazard Identification books, which will be carried by all personnel in Occupational Health and Safety and Environmental roles.

Generally, the person identifying the unsafe condition will, if possible, rectify the situation immediately. All unsafe conditions or acts identified during inspections or audits will be recorded in a Hazard Register / Incident Database to monitor recommended actions and close out.

4.3.1 Incident / Accident Investigation

Incidents, accidents and non-conformances with the CSEMP or with legal requirements and "near miss" events will be reported and recorded in an on-site register. The incident/accident will be investigated to identify how the incident/accident occurred and to review and rectify the process so the incident/accident does not happen again. This will be recorded on the Opportunity for Improvement (OFI) register.

Actions identified through the OFI to improve the process or system shall be developed by the construction management team and signed off by the Environmental Manager. All information will be recorded into the OHS systems for the on-site Environmental Team. The Environmental Manager will review all environmental OFIs raised on a weekly basis to close out in the timescales specified.

4.3.2 Preventative Action

To proactively manage potential environmental issues, a safety and environment committee will be responsible to review the following:

- OFI registers;
- Environmental alerts from other projects; and
- Changes to legislation.

After reviewing all relevant information, any opportunities to improve site procedures will be incorporated into environmental education provided on the Project.

4.4 Management Review

This document will be reviewed after confirmation of the resource consent and designation conditions and will be revised in accordance with those conditions. The CEMP and the Management Plans will be updated, with any necessary approval, throughout the course of the Project to reflect material changes associated with changes to construction techniques or the natural environment.

Approval from GWRC will be sought for any changes to the Erosion and Sediment Control, Ecological and Bulk Earthworks Contaminated Land Management Plans. Changes to the Construction Air Quality, Construction Noise and Vibration, Construction traffic and Landscape Management Plans will be submitted to Kāpiti Coast District Council (KCDC) as part of the Outline Plan process.

A management review of the CEMP will be undertaken at least annually by the Project Management team and the Project Manager. This is independent of the monthly audits but will take the findings of these audits into account. The management review will be organised by the Environmental Manager. The review will take into consideration:

- Input from the NZTA;
- Site personnel comments;
- Audit findings and recommendations;
- Environmental monitoring records;
- Environmental complaints, incidents and emergencies;
- Details of corrective and preventative actions;
- Environmental non-compliances;
- Changes to organisational structure;
- On-going compliance with objectives, conditions and targets; and
- Possible changes in legislation and standards.

The review process will include looking at the environmental controls and procedures to make sure they are still applicable to the activities being carried out. Reasons for making changes to the CEMP will be documented. A copy of the original CEMP document and subsequent versions will be kept for the Project records, and marked as obsolete. Each new/updated version of the CEMP documentation will be issued with a version number and date to eliminate obsolete CEMP documentation being used.

Appendix A: Draft Construction Noise & Vibration Management Plan

Appendix B: Draft Construction Air Quality Management Plan

Appendix C: Draft Erosion & Sediment Control Plan

**Appendix D: Draft Bulk Earthworks Contaminated Land
Management Plan**

Appendix E: Draft Ecological Management and Monitoring Plan

Appendix F: Draft Landscape Plan

Refer to Landscape Plans in Volume 5

Appendix G: Draft Construction Traffic Management Plan

Appendix H: Draft Site Specific Management Plan – Central Ōtaki

Appendix I: Draft Site Specific Management Plan – Mary Crest

Appendix J: Draft Accidental Discovery Protocol

Archaeological Accidental Discovery Protocol – Peka Peka to North Otaki Expressway

Draft	Date
Version 1	7 February 2013

BACKGROUND:

These archaeological protocols have been developed specifically for the Peka Peka to North Otaki Expressway Project. They have been written to be read in conjunction with the significant find policy for the project developed by Nga Hapu o Otaki. While this protocol deals specifically with archaeological sites as defined in the Historic Places Act 1993⁴, any work associated with Maori sites within the Project will also be carried out in accordance with the significant find policy and in consultation with Nga Hapu o Otaki.

For the purposes of the Project an authority to modify archaeological sites located within the Project footprint will be obtained from the New Zealand Historic Places Trust. No work that will impact on archaeological resources within the Project footprint will be carried out except in accordance with the legal conditions of any authority granted by the Historic Places Trust.

Within the Project footprint the following areas have been identified to be the subject of detailed archaeological investigation:

- Otaki Railway Station
- Clifden Cottage (Bridge Lodge)
- Archaeological Risk Area – Te Hapua Road – Mary Crest (Te Horo Pa)
- Archaeological Risk Area – Rahui Road to Taylors Road.

Work in these areas will be guided by site / area specific archaeological management plans. The protocols outlined in this document are to cover all other areas of works, for which an archaeologist will not be on site.

⁴ An archaeological site is defined in the Historic Places Act 1993 as any place that was associated with human activity that occurred before 1900, and which may be able, through investigation by archaeological methods, provide evidence relation to the history of New Zealand.

GUIDELINES:

In the event of an “accidental discovery” of archaeological deposits or features or suspected archaeological deposits or features, including human remains the following steps shall be taken:

1. All work within the vicinity of the site (20 metres of the suspected site) will cease immediately.
2. The plant operator will shut down all construction equipment and activity, leave the site area and unearthed archaeological material *in situ* and advise the relevant person (e.g. site construction supervisor, consultant, owner).
3. The construction / earthworks manager will take immediate steps to secure the area of the site to ensure the archaeological matter remains undisturbed and advise the NZTA Project Manager. Work may continue outside of the site area. It may be necessary to physically mark off the area of the suspected archaeological site to ensure it is not accidentally modified further.
4. The Project Manager will immediately notify Nga Hapu o Otaki representatives, as outlined below and in the significant finds policy, and the Project Archaeologist. If as a result of discussion it is determined to that the material is archaeological the matter will be reported to the Regional Archaeologist at the New Zealand Historic Places Trust, and to any required statutory agencies if this has not already occurred.
5. Any and all visits to the project site must be cleared by the relevant person.
6. The relevant person will ensure that the necessary people shall be available to meet and guide representatives of the New Zealand Historic Places Trust, tangata whenua, and any other party with statutory responsibilities, to the site.
7. In the case of the find being koiwi tangata (human remains) the NZ Police will be notified. All work associated with koiwi tangata will be carried out following appropriate tikanga and guided by kaumatua.
8. Works in the site area shall not recommence until authorised by the relevant person, who will consult with the New Zealand Historic Places Trust staff, tangata whenua, the NZ Police (and any other authority with statutory responsibility).

CONTACTS:

Provided below is a list of nominated contacts.

Name	Position	Numbers	Email
Rupene Waaka	Nga Hapu o Otaki Chairperson	mobile 0272108860	jujufromotaki@gmail.com
	NZTA Project Manager		
	Project Construction Manager		
Juanita Timutimu	NZ Police Pouwhakataki - District Iwi Liaison	phone 06 366 0500 Extn: 65434	Juanita.timutimu@police.govt.nz
Te Kenehi Teira	Kaihautu NZHPT / Pouhere Taonga	phone 04 494 8042 mobile 027 289 6293	teira@historic.org.nz
Kathryn Hurren	Regional Archaeologist NZHPT / Pouhere Taonga		
	Project Archaeologist		

Appendix K: NZTA Environmental Objectives

Summary of relevant NZTA environmental objectives provided in the NZTA Environmental Plan 2008

Environmental Impact	Relevant Environmental Objective/s
Noise	N3 Manage construction and maintenance noise to acceptable levels
Air quality	None specifically related to construction activities
Water resources	<p>W1 Ensure runoff from State Highways complies with RMA requirements</p> <p>W2 Limit the adverse effects of run-off from State Highways on sensitive receiving environments</p> <p>W3 Ensure stormwater treatment devices on the network are effective</p>
Erosion and sediment control	<p>ES1 Ensure construction and maintenance activities avoid, remedy or mitigate effects of soil erosion, sediment runoff and sediment deposition</p> <p>ES2 Identify areas susceptible to erosion and sediment deposition and implement erosion and sediment control measures appropriate to each situation with particular emphasis on high-risk areas</p> <p>ES3 Use bio-engineering and low-impact design practices where practicable</p>
Social responsibility	None specifically related to construction activities
Culture and heritage	H1 Proactively limit the disturbance of significant cultural and heritage features along state highways
Ecological resources	<p>E2 No net loss of native vegetation, wetlands, critical habitat or endangered species</p> <p>E3 Limit the spread of plant pests</p>
Spill response and contamination	<p>S1 Design stormwater control and retention devices that can accommodate spills in areas of high environmental risk</p> <p>S2 Ensure the removal, placement and disposal of contaminated soils is achieved in accordance with the Soil NES</p>
Resource efficiency	None specifically related to construction activities
Climate change	C3 Mitigate activities associated with the construction, operation and maintenance of state highways to effect a net deduction of GHG from transport
Visual quality	None specifically related to construction activities
Vibration	<p>V2 Mitigate vibration where levels are unreasonable and exceed relevant criteria set in New Zealand or internationally accepted thresholds</p> <p>V3 Avoid or reduce, as far as practicable, the disturbance to communities from vibration during construction and maintenance</p>

Environmental management methods set out in this CEMP will remain consistent with the NZTA's overall objective, as well as the objectives and policies in the NZTA's Environmental Plan

Appendix L: Environmental Risk Register

Environmental Risk Register (*example format*)

Environmental Risk/ Hazard	Likelihood of occurrence	Consequence of occurrence	Risk of occurrence	Mitigation	Further Reference (to measures contained in specific mitigation plans or this CEMP)

Appendix M: Sample Inquiries & Complaints Register

Appendix N: Sample Weekly Environmental Inspection Checklist

Weekly Inspection							Date:
Inspection Area	Inspected by/person responsible	x		N/A	Action required	Person Responsible	Action Completed by:
Erosion and sediment control devices (zone x)							
Perimeter Boundary/Fencing Secure							
Dust – any activities requiring extra management?							
Stockpiles maintained							
Refuelling areas (bunds in place, spill kit in place)							
Hazardous Substances Secured (any new materials onsite)							
Waste/recycling Bins Maintained							
Open excavations barriers in place?							
Weather – any high rain/storm events during the week?							