WAKA KOTAHI NZ TRANSPORT AGENCY

Te Ahu a Turanga Manawatū Tararua Highway

Te Ahu a Turanga: Manawatū Tararua Highway

Construction Environmental Management Plan

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Revision Details

Revision	Details
A	For Review
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1 Introduction

1.1 Purpose and Scope

This Construction Environmental Management Plan (CEMP) supports the construction of Te Ahu a Turanga: Manawatū Tararua Highway Project (the Project). The CEMP is a requirement of the proposed designation and proposed regional consent conditions for which Waka Kotahi NZ Transport Agency (the Transport Agency) is the Requiring Authority (RA) and consent holder respectively.

The purpose of this CEMP is to provide an overarching reference document for ensuring compliance with the obligations of the RMA conditions (as prescribed in proposed designation condition 14 and proposed regional consent condition (CM4) for the Project. This is achieved by integrating the conditions and their requirements with the delivery of management plans, monitoring programmes and other information requirements into a single point of reference, which will ensure compliance with the consent conditions and implement the obligations for the Project as a whole. In doing so, the CEMP will detail the environmental management strategy including performance criteria, management actions, monitoring, auditing, incident response, and reporting requirements, and to specify areas of responsibility for the construction phase of the Project.

The CEMP provides an overview of the different aspects of the construction programme and the key environmental and social issues to be addressed. The CEMP is an umbrella document which contains the sub management plans (which provide further detail as to how specific effects shall be managed) and implementation methods for addressing specific effects associated with the Project.

The objective for the CEMP as stated in proposed designation condition 14(b) and draft resource consent condition (CM4) is:

- To set out the measures that must be implemented to comply with the designation conditions to appropriately remedy or mitigate any adverse effects of construction works activities and, in the case of the Ecology Management Plan, enabling works.

The CEMP is considered a 'live document' and updates of the document shall be supplied as new information is received, including any additional requirements of the regional resource consents once obtained (as required by designation condition 14 (d)(e)) and throughout the entire construction period).

A copy of the CEMP is required to be kept at all site offices for the duration of the Projects construction and is intended to be the primary tool to inform the Project's management of environmental and construction effects associated with its construction, in accordance with proposed designation consent 14 (d)(xi).

1.2 Management Plan Framework

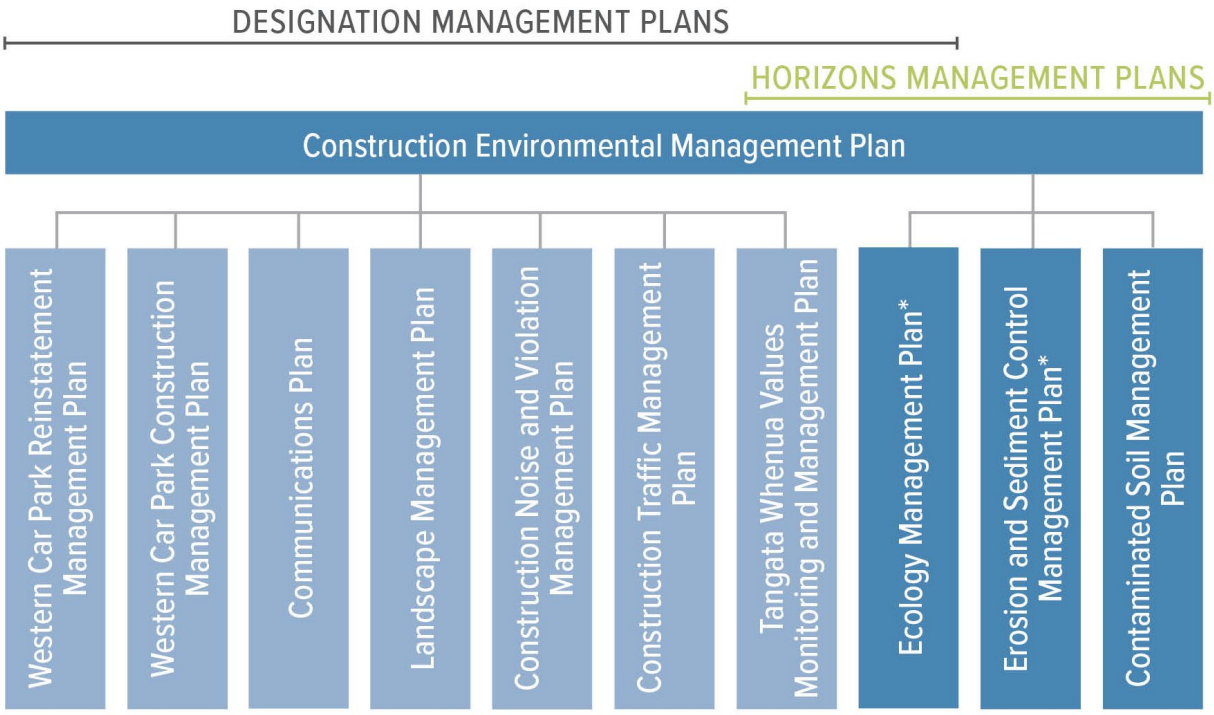
This section responds to proposed designation condition 14(c).

The Project requires a suite of construction, environmental and mitigation management plans (the sub-management plans, discussed below) to ensure the successful construction of the Project. The sub-management plans form an integral part of how construction activities are managed to address the actual and potential adverse social, environmental and cultural effects.

The CEMP is an overarching document prepared in order to meet the conditions imposed (either by way of designation or resource consent), relevant legislation and the Transport Agency's environmental objectives. Figure 1-1 below sets out the management plan framework, including the sub management

plans required by the proposed designation conditions and those anticipated by the regional resource consents.

Figure 1-1 Management Plan Framework (proposed)



Note: The star (*) denotes those sub-management plans of the CEMP that then contain sub-management plans or appendices of their own.

1.2.1 Management Plan Structure

The structure of this CEMP is based on the requirements of the proposed designation and regional resource consent conditions (required by proposed conditions 14 and CM4 respectively) and the Transport Agency requirements as set out in their *Guideline for preparing an Environmental and Social Management Plan* (April 2014). The plan is set out in five sections, which can be interpreted as the WHY, the WHAT and the HOW.

The WHY

Section 1 sets out the rationale for a CEMP. This includes describing the framework and suite of management plans required to ensure compliance with the relevant proposed designation and regional consent conditions.

The environmental management plans that support this CEMP are also a response to the management of the environmental effects identified by the Assessment of Environmental Effects, the construction programme, legislative requirements, RMA conditions and other requirements of the Project. Where relevant, these management plans are cross-referenced to demonstrate when and how a condition will be implemented.

The WHAT

Section 2 describes the Project including the enabling and construction works programme and work methodologies, the site layout and the design and management of key construction works and activities.

Section 3 sets out the environmental outcomes anticipated by the Transport Agency's Environmental and Social Responsibility Policy (2011), Cultural and Environmental Design Framework (CEDF) and relevant performance standards and conditions of the designation. These are managed by identifying potential impacts and how they fit into the contractor's and the Transport Agency's own environmental and compliance management systems.

The HOW

This CEMP and the associated management plans detail the environmental management processes and procedures to be implemented on site to mitigate actual and potential environmental effects associated with the construction of the Project.

Section 4 sets out how the quality systems will ensure that the management plans and operating procedures in Section 3 are delivering the outcomes identified in Section 1.

Section 5 describes how the CEMP will be reviewed, amended and updated.

1.3 Document Structure

Proposed designation conditions 14 and CM4 set out the requirements in relation to the CEMP. Table 1-1 below sets these requirements out those matters for consideration and / or inclusion within the CEMP and where these requirements are met within this draft CEMP. Note, this will be updated as part of seeking the regional resource consents for the Project.

Table 1-1 Proposed designation conditions and proposed conditions of regional consents relating to the CEMP

Condition Number	Proposed Designation Conditions	Condition Number	Proposed Condition of Regional Consents	Reference
14(a)	As soon as practicable, and prior to the commencement of construction works, the Requiring Authority must prepare a Construction Environmental Management Plan.	CM4(a)	A finalised Construction Environmental Management Plan must be submitted to Manawatū-Whanganui Regional Council for information at least twenty (20) working days prior to the commencement of the works authorised by these resource consents.	This draft document
14(b)	The objective of the Construction Environmental Management Plan is to set out measures that must be implemented to comply with the designation conditions to appropriately remedy or mitigate any adverse effects of construction work activities and, in the case of the Ecological Management Plan, enabling works.	CM4(b)	The objective of the Construction Environmental Management Plan is to set out measures that must be implemented to comply with the conditions of these resource consents in order to appropriately remedy or mitigate any adverse effects of the works authorised by these resource consents.	Section 1.1
14(c)	The Construction Environmental Management Plan must accompany any relevant outline plan prepared in accordance with Condition 9 and also include the following suite of management plans where they address works that are the subject of the outline plan(s): i) Communications Management Plan in accordance with Condition 11; ii) Landscape Management Plan prepared in accordance with Condition 17; iii) Ecological Management Plan prepared in accordance with Condition 24; iv) Construction Noise and Vibration Management Plan prepared in accordance with Condition 28; v) Construction Traffic Management Plan prepared in accordance with Condition 29; vi) Tangata Whenua Values Monitoring and Management Plan prepared in accordance with Condition 30;	CM4(c)	The Construction Environmental Management Plan must include, but not be limited to, the following: i. Ecology Management Plan; ii. Tangata Whenua Values Monitoring and Management Plan prepared in accordance with Condition TW3; iii. Erosion and Sediment Control Plan;	Section 1.2 and 1.3 The Ecology Management Plan has been prepared and is provided at Volume VII of the regional resource consent documentation. All other plans specified will be submitted at a later date during the design / outline plan phase.

Condition Number	Proposed Designation Conditions	Condition Number	Proposed Condition of Regional Consents	Reference
	vii) Western Car Park Construction Management Plan prepared in accordance with Condition PN2; and viii) Western Car Park Reinstatement Management Plan prepared in accordance with Condition PN3.			
14(d)	The Construction Environmental Management Plan must include (as a minimum): i) the roles and responsibilities of staff and contractors;	CM4(c)	iv. The roles and responsibilities of staff and contractors, including the Project Representative identified under Condition CM1 and supervisor identified under Condition ES1;	Section 4.1
	ii) The environmental outcomes anticipated by: A) the Requiring Authority's 'Environmental and Social Responsibility Policy' (2011) and relevant regional and district plan rules and associated performance standards and conditions (including those imposed by other authorisations or permissions), B) the Cultural and Environmental Design Framework; and C) relevant performance standards and conditions of the designation.		v. The environmental outcomes anticipated by: A) the Requiring Authority's 'Environmental and Social Responsibility Policy' (2011); B) relevant rules and associated conditions, standards and/or terms in the Manawatū-Whanganui Regional Council's One Plan; C) constraints or restrictions imposed by other authorisations or permissions; and D) the conditions of these resource consents.	Section 3.1 Section 3.2 Section 3.3
	iii) A description of the Project including: A) the enabling and construction works programmes and staging approach;		vi. A description of the Project including the programme and staging for the physical works authorised by these consents;	Section 2.2
	B) enabling and construction works methodologies;		vi. A) the location of construction site infrastructure including fencing, site offices, site amenities, contractors' yard access, equipment unloading and storage areas;	Section 2.3
	C) a detailed site layout;			Section 2.4
	D) the design and management specifications for all earthworks on-site, including disposal sites and their location;	N/A	-	Section 2.5
	E) the design of temporary lighting for enabling and construction works and construction support areas;	N/A	-	Section 2.6

Condition Number	Proposed Designation Conditions	Condition Number	Proposed Condition of Regional Consents	Reference
	F) the approach to the management of enabling and construction works waste, taking into account the waste management hierarchy to reduce, re-use, recycle and recover, along with responsible disposal of residual waste;	CM4(c)	vi. B) the approach to the management of any waste materials, taking into account the waste management hierarchy to reduce, re-use, recycle and recover, along with responsible disposal of residual waste;	Section 2.7
	iv) a description of training requirements for all site personnel (including employees, sub- contractors and visitors);		vii. a description of training and induction requirements for all site personnel (including employees, sub- contractors and visitors);	Section 4.2
	v) environmental incident and emergency management procedures;		ix. environmental incident and emergency management procedures;	Section 4.3
	-		viii. details of the storage of fuels, lubricants, hazardous and/or dangerous materials, along with procedures for refuelling and emergency spill response(s);	To be provided later as design progresses
	vi) environmental complaints management measures;		x. complaints management measures set out by Conditions GA2;	Section 4.4.1.3
	vii) compliance monitoring, environmental reporting and environmental auditing, including a requirement to provide the results or outcomes of monitoring, reporting and auditing to the Responsible Officer(s);		xi. compliance monitoring, environmental reporting and environmental auditing, including the provision of results or outcomes of monitoring, reporting and auditing to the Manawatū-Whanganui Regional Council under Condition GA3 and Condition GA4	Section 4.4
	viii) the details for emergency contact personnel who must be contactable 24 hours, 7 days a week;		xii. the details for emergency contact personnel who must be contactable twenty-four (24) hours, seven (7) days a week;	Table 4-3
	-		xiii. the proposed hours of work;	To be provided later as design progresses
	ix) site security arrangements;		xiv. site security arrangements;	Section 4.5
	x) an accidental discovery protocol, where required by and in accordance with Condition 31;		xv. archaeological discovery protocol procedures consistent with Condition AH1 and any archaeological authority granted for the Project; and	Section 4.6
	-		xvi. contaminated soil discovery protocol procedures consistent with Condition LD8;	

Condition Number	Proposed Designation Conditions	Condition Number	Proposed Condition of Regional Consents	Reference
	-		xvii. 'at-risk' or 'threatened' flora and fauna discovery protocol procedures consistent with Condition EC	
	xi) a requirement for a copy of the Construction Environmental Management Plan to be held at all site offices;	N/A	-	Section 1.1
	xii) methods for amending, augmenting and updating the Construction Environmental Management Plan;	CM4(c)	xviii. methods for reviewing, amending, augmenting and updating the Construction Environmental Management Plan.	Section 5
14(e)	The Construction Environmental Management Plan must be updated to incorporate any requirements of Regional Council resource consents.	N/A	-	Section 1.1

2 Project Description

Section 2 addresses proposed designation conditions 14 (d)(iii) (A to F) and proposed conditions of the regional resource consents.

The information provided is intended to show how the requirements of the proposed designation conditions and proposed conditions of the regional consents will be met. The information provided in the CEMP shall be updated as the design progresses and will further evolve during the construction period for the Project.

2.1 Overview

This section responds to proposed designation condition 14(d)(ii).

The Project is for the construction, operation, use and maintenance of approximately 11.5 km of rural State highway connecting Ashhurst and Woodville via a route over the Ruahine Range. The Project is located entirely within the Manawatū-Whanganui Region, and traverses the Ruahine Ranges north of the Manawatū Gorge, connecting Palmerston North City, Manawatū District and Tararua District territorial authority jurisdictions. The Manawatū Gorge is the boundary between the Tararua and Ruahine Ranges and is 16 kilometres (km) east of Palmerston North, 31.7km south west of Dannevirke and approximately 155km north of Wellington.

The purpose of the Project is to replace the indefinitely closed existing State Highway 3 (SH3) through the Manawatū Gorge with a new stretch of rural state highway.

The location and extent of this new state highway in relation to the former route is shown in Figure 2-1.

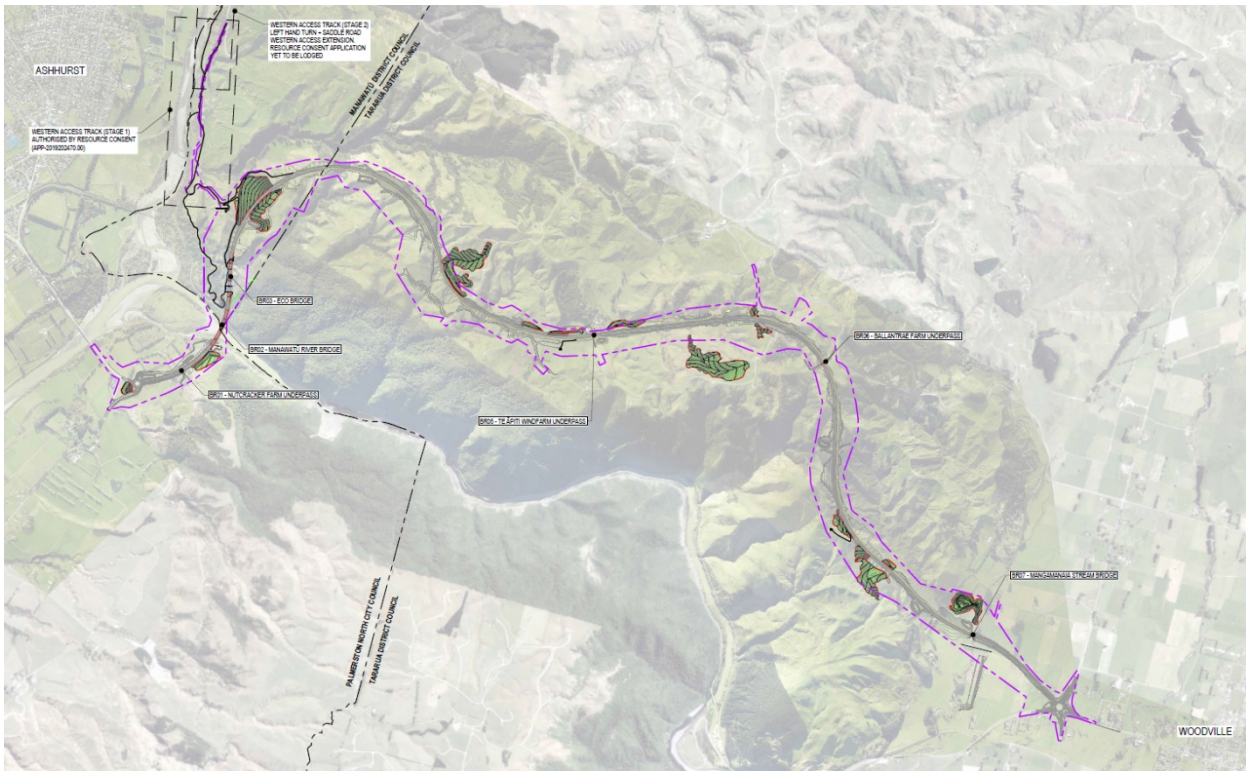


Figure 2-1 Overview of the Project Location and Extent

2.2 Enabling & Construction Programme

Section 2.2 responds to proposed designation condition 14(d)(iii)(A).

Listed below in Table 2-1 is an indicative construction schedule. This information will be updated as site conditions are better understood, the detailed design progresses, and the construction methodology and associated staging is refined.

2.2.1 Enabling Works

Table 2-1 outlines the proposed enabling works and associated programme. The location of the proposed enabling works in relation to the alignment is provided in drawing TAT-3-DG-R-0010-A contained at Volume II.

Table 2-1 Indicative Enabling Works Construction Schedule

Enabling Work	Commencement Month / Year
Site-wide Geotechnical Investigations.	Currently underway
Formation of construction access tracks: ▪ Western access track (Stage 2) (including left hand turn off Saddle Road, which is a safety improvement); ▪ Cook Road (access track improvement); ▪ Morgan Road (access track improvement); and ▪ Eastern access track (off Hope Road).	2020-2021
Pine tree clearance - Earthworks and vegetation clearance located on eastern end of the alignment.	
Te Āpiti Wind Farm access tracks (to be confirmed) - Reconfiguration of Te Āpiti Wind Farm access tracks and utilities.	
Construction Yard / Main Site Office - Formation of construction yard/main site office at Western end of the alignment.	
Water take from Manawatū River and creation of reservoirs for water storage - Works relating to the abstraction of water needed to construct the Project.	

2.2.2 Main Works

Construction of the Project is anticipated to take approximately 4 years to complete.

To achieve the Project completion timeframe, works cannot take the geographical sequential approach. This means that there will need to be a number of activities being undertaken concurrently throughout the entire Project instead of working from one end to the other.

The specific staging of the work is subject to land acquisition, the availability of resources and materials (such as pavement aggregates, materials, construction equipment and the procurement of native plants) and the inter-dependency of construction activities and environmental controls.

The construction works will be undertaken in the sequence set out in Figure 2-2 below and as shown in more detail in the Construction Time/Location diagram provided at Appendix B. Throughout the Project

construction period, landscaping and planting and the installation of barriers, signs and road marking will also occur as principal construction activities are completed.

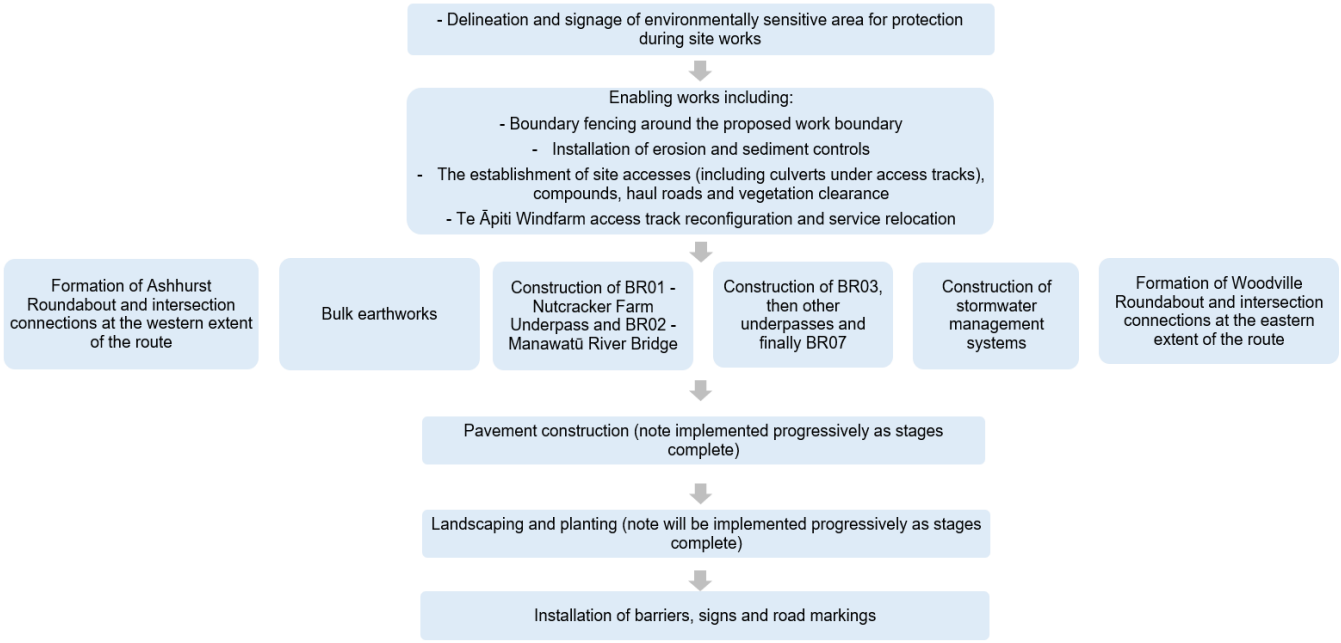


Figure 2-2 Proposed Construction Sequencing

2.3 Enabling & Construction Works Methodologies

Section 2.3 responds to proposed designation condition 14(d)(iii)(B).

The enabling and construction work methodologies are described in detail at Appendix C. The methodologies will be updated as the Project progresses and shall include a series of detailed and localised 'Work Method Statements' specific to each construction activity and / or location of the Project, including how these will meet the relevant proposed designation conditions and proposed conditions of the regional consent.

A summary of the general anticipated construction methodologies for the Project is described below:

- **Site preparation works:**
  - Delineation and signage of environmentally sensitive areas for protection during site works;
  - Fencing;
  - Staged and progressive installation of erosion and sediment control measures in accordance with approved ESCP / SSESCPS; and
  - Staged and progressive site clearance and set out - to be undertaken in accordance with the Project CEMP and associated management plans.
- **Earthworks:**
  - Fill methodology – including mass haulage routes to transport equipment and material to fill sites, stripping, undercutting of embankments;
  - Cut methodology – activities include stripping overburden by excavator and hauled to the identified disposal areas by dumpers, the progressive installation of drainage at each bench height, and the

transportation of cut material to fill areas placed and recompacted in layers to the underside of the pavement formation;
- Earthwork finishing works – topsoil re-spread on the batters and berms; and
- Paving and finishing works – final trim of the subgrade surface and construction of the pavements on road, stopping areas, SUP and within the Manawatū Gorge Scenic Reserve Carpark.

- **Spoil disposal –** spoil sites are described in Section 2.5.2 below and shall follow an indicative methodology including**:**
  - Erosion and Sediment Control in accordance with GD05;
  - Access and set out;
  - Stripped topsoil stored to the edges of disposal areas where possible and reused to progressively close and remediate disposal areas as they are infilled;
  - Infill; and
  - Finishing works.
- **Stream Works** – the proposed stormwater design results in some stream works being undertaken for the necessary devices, stream diversion and culverts, which is described in further detail in Appendix C; and
- **Bridge Structures** – the general construction approach for each bridge structure located along the alignment is described in Appendix C.

2.4 Site Layout

Section 2.4 responds to proposed designation condition 14(d)(iii)(C).

The Project location has previously been introduced at Section 2.1 and shows the linear nature of the corridor and associated construction footprint. It is this footprint that will define the final site layout arrangement and details.

The Accommodation Works drawings (TAT-3-DG-C-3601 – 3616 contained in Volume II) provides detail in respect of key features that will influence the final site layout arrangement. This includes:

- Access track locations;
- Location of the structures compound/laydown areas;
- Temporary access for the construction of bridge structures;
- Crane pad locations;
- Office compound and staff car parks; and
- Temporary top soil stock pile areas.

Figure 2-3 overleaf identifies the location of access points along the alignment, which will be gained via:

- Existing farm tracks which may need to be upgraded;
- Existing Te Āpiti Wind Farm access tracks; and
- Establishment of new access tracks within the Project area.

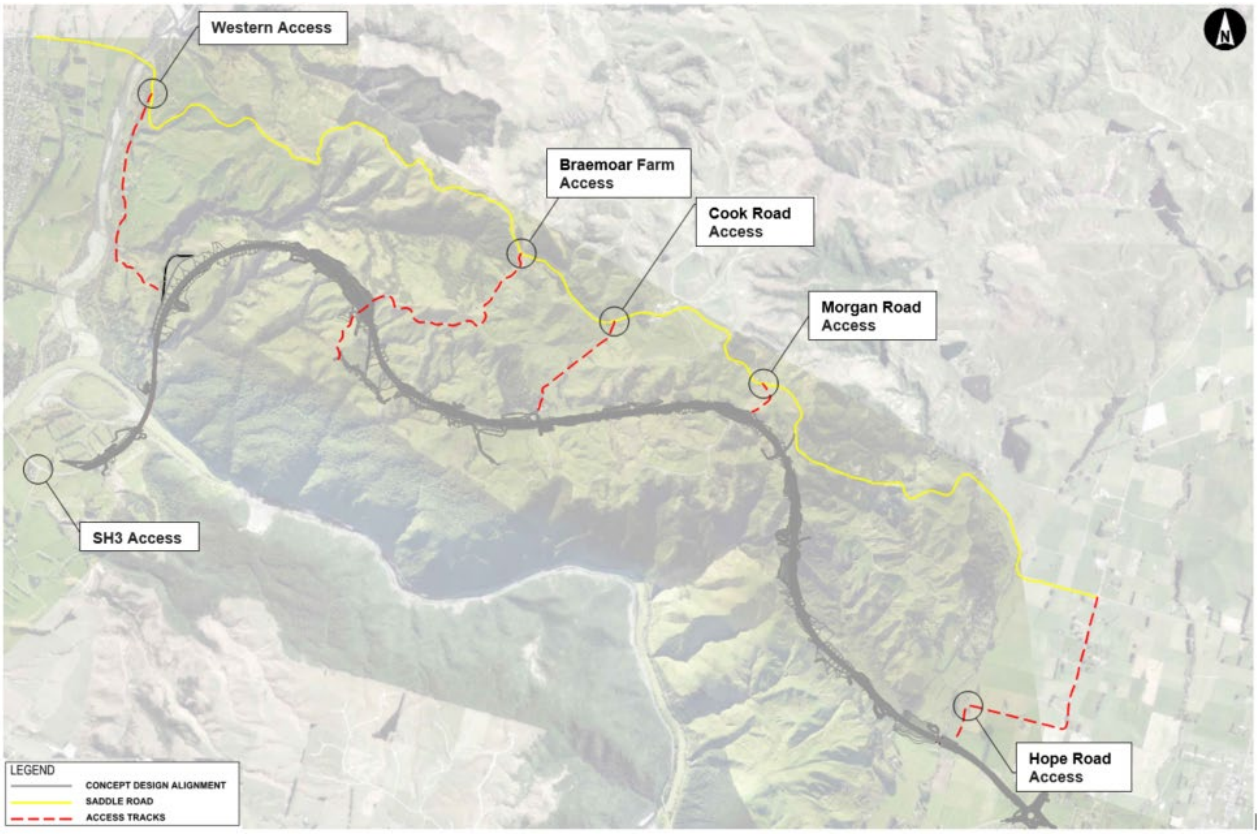


Figure 2-3 Construction Access Points

2.5 Earthworks Design and Management Specifications

This section responds to proposed designation condition 14(d)(iii)(D).

2.5.1 Bulk Earthworks

It has been calculated on an indicative basis that the total earthworks cut volume will be approximately 5.8 million m^3. This includes approximately 4.6 million m^3 of cut to fill and 1.2 million m^3 of cut to waste.

Following is the summary of the cuts and fills across the Project:

- **CH 4300 to CH 5850:** This section will mainly be constructed in embankment fill up to 30 m high and in cut up to 35 m high.
- **CH 5850 to CH 6800:** Cuts up to 55 m high are required with all gully infill to be undercut.
- **CH 6800 to 7600:** Cuts up to 20 m high into mudstone/siltstone and up to 20 m fill over mudstone/ siltstone are required.
- **CH 7600 to CH 9000:** A 3 m to 4 m high embankment fill with all soft gully fills to be undercut.
- **CH 10400 to CH 11400:** Cuts up to 62 m high which will be formed in mudstone and sandstone.
- **CH10100 to CH12600:** Fill up to 35 m high.
- **CH12600 to eastern extent:** 13 m high embankment at CH 12600 reducing to 8 m high at CH 12900.

Drawings TAT-3-DG-H-1251 – 1257 contained in Volume III provide earthwork typical details.

A summary of the estimated earthwork quantities anticipated for each of the construction seasons is shown

in Table 2-2 below.

Table 2-2 Earthwork Quantities anticipated for each Construction Season

Earthworks Season	Volume (m^3)
Earthworks Season 1	118,000
Earthworks Season 2	2,500,000
Earthworks Season 3	2,400,000
Earthworks Season 4	1,100,000

Table Notes: The volumes presented are insitu volumes and do not account for material bulking.
The total some of volumes handled per season is greater than the total earthwork volume due to double handling for the conditioning of material.

Some earthworks (cut to waste) activities are proposed to be undertaken during the winter periods when site conditions permit and will include cut to waste activities. These cut to waste activities are predominantly where the stripping of unsuitable material from the upper 3 m is required. Therefore, the greatest opportunities for winter earth working are within the winters between seasons 1 and 2 and seasons 2 and 3.

2.5.2 Spoil Sites

The volume of material in excess of the cut to fill balance is estimated to be approximately 1.8 Million m^3 which is 30% of the overall Project earthwork volumes. The excess material will be disposed of at identified spoil sites within the Project area. A target disposal volume of 2 million m^3 has been provided to allow for 15% additional volume to accommodate variability and to provide contingency.

As it is inefficient and costly to transport this volume of spoil from the Project area, the Project has considered the disposal of this spoil at locations along the alignment and in some cases, immediately adjacent the alignment (where locations extend outside the proposed designation). Fifteen suitable spoil sites in the vicinity of the Project alignment have been selected and are described in Table 2-3 below.

The spoil sites are shown on the Spoil Site Areas Plans (refer to TAT-3-DG-C-3600 to TAT-3-DG-C-3645 contained in Volume III). Figure 2-4 (which is a reduced depiction of drawings 3600 – 3645 referenced above) confirms the general location of the spoil sites within the Project area.

Table 2-3 Spoil sites and approximate estimates of disposal volumes

Spoil site Reference	**1**	**4**	**5**	**6**	**10**	**11**	**13**	**15**
Disposal Volume (insitu) m^3	32,000	23,700	289,000	245,600	6,600	9,900	33,600	9,000
Spoil site Reference	**16**	**19**	**20**	**21**	**22**	**25**	**28**	**31**
Disposal Volume (insitu) m^3	24,600	46,200	18,500	11,900	83,000	363,000	329,000	304,500

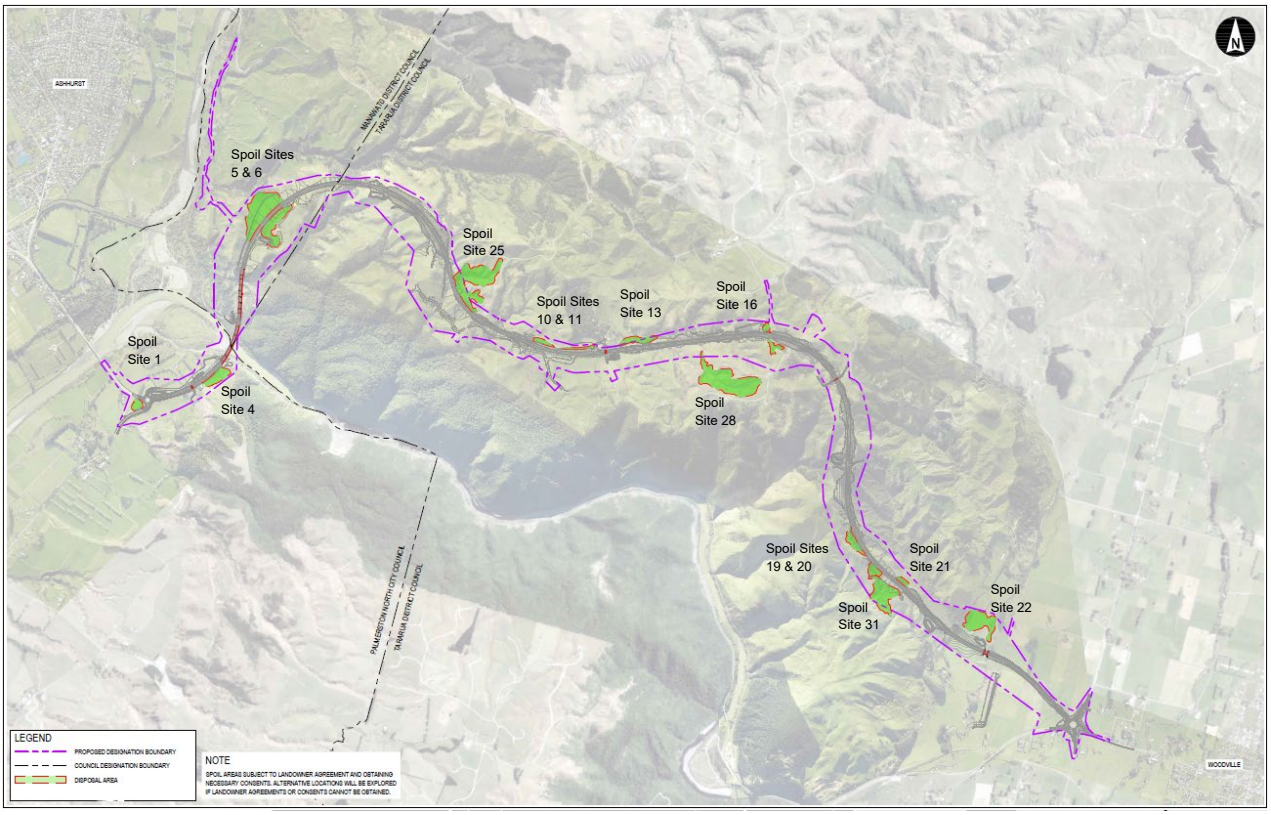


Figure 2-4 Location of proposed Spoil sites

2.6 Temporary lighting

This section responds to proposed designation condition 14(d)(iii)(E).

Temporary lighting for the purposes of the enabling and construction works shall be provided in accordance with standard NZTA M30 *Specification and Guidelines for Road Lighting*.

Where lighting is required for night works (for either construction works or at construction support areas), the temporary lighting details shall be updated within the CEMP as the design of these features progresses. Council will be notified.

2.7 Waste management

This section responds to proposed designation condition 14(d)(iii)(F).

Enabling and construction works waste produced from the physical construction of the Project shall be managed using the following general methods and principles:

- Where possible, materials will be measured and used so that residual or left-over material is kept to a minimum;
- Alternative products will be sourced where it is appropriate and practicable to do so (such as replacing fibrous cloth material in the lining of temporary channels with natural based polymers);
- Recycling facilities will be provided at sit offices and compounds;
- Packaging of construction material in transit will be managed by requesting the supplier find alternative methods for packing (i.e. hemp-based wrap or compostable material instead of plastic); and

- Products and materials that are not able to be managed through the waste management hierarchy (reduce, re-use, recycle and recover) will be disposed of at an appropriate waste facility.

The management of construction and demolition waste is also addressed through PR-09 Waste Management Requirements of Greenroads (discussed in further detail at Section 3.4.2). These waste management processes shall be in place at the start of construction and cover all Project activities, including subcontractor work.

3 Environmental Objectives and Outcomes

In accordance with designation condition 14(d)(ii) and proposed conditions of the regional consent, Section 3 identifies the environmental outcomes anticipated by:

A) the Requiring Authority's 'Environmental and Social Responsibility Policy' (2011) and relevant regional and district plan rules and associated performance standards and conditions (including those imposed by other authorisations or permissions);

B) the Cultural and Environmental Design Framework; and

C) relevant performance standards and conditions of the designation.

The information provided is intended to show how the requirements of the proposed designation conditions will be met and proposed conditions of the regional consent. The information provided in the CEMP shall be updated as the design progresses and will further evolve during the construction period for the Project.

3.1 Environmental and Social Responsibility Policy (2011)

This section responds to proposed designation condition 14(d)(ii)(A).

Figure 3-1 overleaf sets out the Transport Agency's Environmental and Social Responsibility Policy (2011). The Environmental and Social Responsibility Policy sets out the environmental and social outcomes that will underpin the construction, operation and monitoring of the Project.

The key messages in the policies are that being proactive is essential; meeting legal compliance is mandatory and continual improvement is the overarching philosophy. The implementation of the CEMP will assist in achieving these policies during the construction of the Project.

Figure 3-1 Transport Agency Environmental and Social Responsibility Policy

NZ TRANSPORT AGENCY
WAKA KOTAHI

POLICY / ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

Section 96(1)(a) of the Land Transport Management Act requires that the NZTA exhibit a sense of social and environmental responsibility. 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 livability 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 and 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 Māori 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.

3.2 Proposed regional and district consents

Table 3-1 below identifies the regional and district plan resource consents associated with the Project. The performance standards and conditions imposed by the resource consents listed below (and any additional resource consents, authorisations or permissions sought) will be provided in Appendix E of the CEMP as they are obtained, in accordance with proposed designation condition 14(d)(ii)(A).

Appendix D sets out the applicable legislation, statements and plans considered in relation to the regional and district resource consents sought.

The below information will be updated, and subsequent changes made to the applicable management plans or operating procedures, new consents or authorities are granted, or variations to the existing set are approved.

Table 3-1 Regional and District Plan Resource Consents and other Environmental Permits

Determining Authority	Project Package	Consent Name	Consent Status	Consent Type	Purpose	Location	Expires
Palmerston North City Council	TBC	-	-	-	-	-	-
Manawatū District Council	Enabling Works	Western Access Track (Stage 2) and Left-Hand Turn	In preparation	Land Use Consent	Upgrading existing access to allow for left hand turn so construction traffic can enter site without turning right across oncoming traffic on Saddle Road. Earthworks required to extend existing access track to reach Eco viaduct area.	North-western end of Saddle Road Bridge, adjacent to Pohangina River.	TBD
	Enabling Works	Quarry	In preparation	Land Use Consent	Establishment of new quarry site as part of aggregate supply for Project.	Adjacent to Pohangina River approximately 800m upstream of Saddle Road Bridge	TBD
Tararua District Council	Enabling Works	NES$_{CS}$	In preparation	Land Use Consent	The necessary resource consents will be sought from the Territorial Authorities in respect of the disturbance of known and potentially contaminated land pursuant to NESCS. These NESCS consents will also cover any accidental discovery during the Project's earthworks.	Four locations of contaminated land within the Project footprint.	TBD
Department of Conservation	Main Works & Enabling Works	Wildlife Authorities	Enabling Works Application Submitted &		Wildlife authorities as required to allow for survey work and potential relocation if required.	Various across the project	TBD

Determining Authority	Project Package	Consent Name	Consent Status	Consent Type	Purpose	Location	Expires
			Main Works Application in preparation				
Horizons Regional Consent	Main Works	Te Ahu a Turanga: Manawatū Tararua Highway Consent	Submitted	Various	Application for the regional resource consents necessary to authorise the construction, operation, use, maintenance of the Project.	Project footprint	TBD
	Enabling Works	Geotechnical Investigations – Two bores in bed and bank of the Manawatū River	Consent Granted (Consent Reference: APP-2018202144.00)	Land Use Consents and Discharge Permit	Drilling two geotechnical bore holes in the bed and bank of the Manawatū River.	The bed and bank of the Manawatū River.	21 March 2020
	Enabling Works	Geotechnical Investigations	Consent Granted (Consent Reference: APP-2019202606.00)	Land Use Consents and Discharge Permit	This package involves earthworks and vegetation clearance to create access tracks and drilling platforms in order to undertake geotechnical investigations on the banks of the Manawatū River, Parahaki Island and within high value ecosystems.	To the immediate east of Parahaki Island within the river bed and true left bank of the Manawatū River and on land on the true right bank of the Manawatū River and adjacent land on Raupō dominated seepage wetlands.	26 February 2022
	Enabling Works	Western Access Track (Stage 1)	Consent Granted (Consent Reference: APP-2019202470.00)	Land Use Consents and Discharge Permit of cleanfill to land	To upgrade and realign an existing access track to provide construction access to the Project from Saddle Road.	985, Saddle Road Ashhurst	12 November 2024
	Enabling Works	Western Access Track (Stage 2) and Left-Hand Turn	In preparation	Land Use Consent and Discharge permit of cleanfill to land	To upgrade and realign an existing access way to allow for construction vehicles to under the work site under the Saddle Road Bridge. Extending the existing track to the Eco Viaduct area.	North-western end of Saddle Road Bridge, adjacent to Pohangina River.	TBD

Determining Authority	Project Package	Consent Name	Consent Status	Consent Type	Purpose	Location	Expires
	Enabling Works	Water Take from Manawatū River and creation of storage ponds	In preparation	Water Permit and Land Use Consent	Water permit to abstract water from the Manawatu River. Land Disturbance to construct storage ponds across the Project route	On the true right-hand bank of the Manawatū River in proximity of KiwiRail culvert. Earthworks along the route	TBD
	Enabling Works	Eastern Access	In preparation	Land use Consents and Discharge Permit	Land use consent for construction of culvert crossing in bed of Mangamanaia Stream. Earthworks and cleanfill discharge associated with construction of access track	Bed of the Mangamanaia Stream. Track to extend from end of Hope Road.	TBD
	Enabling Works	Cook Road Access	In preparation	TBC	Access Track Improvements	TBC	TBD
	Enabling Works	Te Āpiti Wind Farm access tracks	In preparation	Land Use Consents and Discharge permit	This package involves earthworks, vegetation clearance and stream crossing activities associated with the creation of the two westernmost access tracks within the Te Āpiti Wind Farm.		TBD
	Enabling Works	Pine Tree Clearance	In preparation	Permitted Activity under the NESPF			
	Enabling Works	Quarry	In preparation	Land Use Consent	Land disturbance associated with quarrying on land-based quarry	Land based operation on true right-hand terrace of Pohangina River	TBD

3.3 Cultural and Environmental Design Framework

This section responds to proposed designation condition 14(d)(ii)(B).

The purpose of the Concept Design Version of the Cultural and Environmental Design Framework (CEDF) is to guide the Detailed Design of the Project. It represents a step towards a Mātauranga Māori, values-based design approach informed by eleven core values identified by the Te Ahu a Turanga Iwi Working Group. It is intended that the values flow into the design and implementation of the Project. This means that the wider design process links back to the underlying cultural and environmental values as well as the subsequent construction period, post construction management and maintenance through to handover.

The CEDF development process is iterative and the CEDF document itself is described as a "living document". This means that the framework document will continue to evolve reflecting the design development process and the ongoing design led discussions between Iwi-Crown Partners and other stakeholders.

There are two outcome principles of the Project which relate to the wider Project purpose and vision and the unique environmental, social and cultural context of the Project. These outcome principles have been developed through the Project Charter as:

- "Tread Lightly" - Careful consideration of the environmental footprint of the Project; and
- "Enduring Community Outcomes" – Consideration of the lasting community outcomes that can be realised from the Project.

The relationship between the values, design outcomes and corridor design principles are conceptualised in Figure 3-2 below. These values and associated outcomes and principles will be applied more as a "cultural and environmental design map" or tool to stimulate face to face interaction with stakeholders and Iwi Partners as well as among the design disciplines themselves (this, in itself, is an example of Kotahitanga).

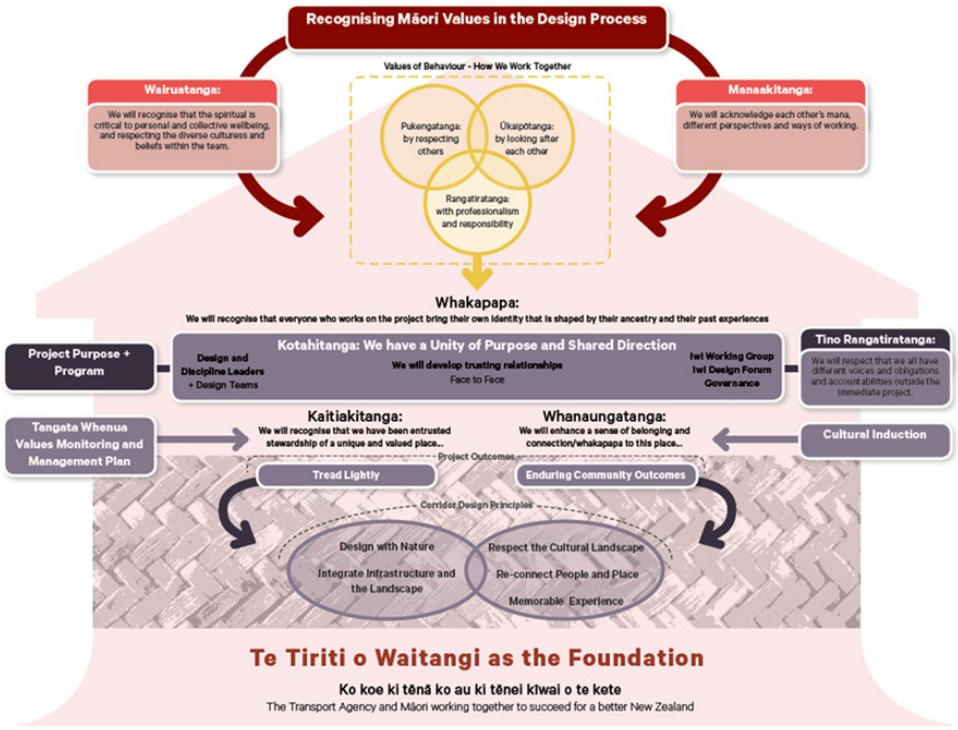


Figure 3-2 Project's Whakapapa Diagram

3.4 Relevant performance standards and conditions of the proposed designation

This section responds to proposed designation condition 14(d)(ii)(C).

Appendix F provides an example of how the CEMP will demonstrate compliance with the relevant performance standards and conditions of the proposed designation to achieve the environmental outcomes anticipated.

3.4.1 The Transport Agency State Highway Environmental Plan

The Transport Agency identifies other objectives required to be achieved by the Project.

This includes the Transport Agency's Environmental Plan and the desire to achieve a minimum Silver Greenroads certification. These objectives and performance standards are discussed in further detail below and will indirectly support the compliance of the proposed designation conditions to appropriately remedy or mitigate any adverse effects of construction work activities.

Te Ahu a Turanga: Manawatū Tararua Highway Project Alliance has identified aspirational environmental objectives from the *Transport Agency State Highway Environmental Plan: improving environmental sustainability and public health in New Zealand* (NZTA, June 2008) to be applied to the Project.

The relevant objectives to this Project are set out in Table 3-2 with outcomes sought outlined.

Table 3-2 Relevant Transport Agency Environmental Plan Objectives

Code	Aspect	Objective	Giving Effect to this Objective
N1	Noise	Reduce exposure to high traffic noise levels from the existing State highway network	N/A – This Project proposes the construction of a new State highway and is therefore not applicable.
N2	Noise	Determine reasonable noise requirements when seeking or altering existing designation including when designating existing local roads by using RMA procedures	The noise requirements have been determined when seeking the proposed designation Condition 26 of the NoR specifies the noise standards and requirements for the project.
N3	Noise	Manage construction and maintenance noise to acceptable levels	The construction and maintenance noise shall comply with the NZS 6803:1999 Acoustics – Construction Noise (NZS 6803:1999)
N4	Noise	Influence activities adjacent to State highways to discourage noise-sensitive activities establishing in areas adversely affected, or likely to be in the future, by State highway noise traffic	N/A – The Project proposes the construction of a new State highway in a rural setting and is therefore not applicable (at this time).

A2	Air Quality	Ensure new State highway projects do not directly cause national environmental standards for ambient air quality to be exceeded	Dust Management Procedures form part of the ESCP and shall provide monitoring to ensure that the Project does not exceed the relevant standards in NESAQ.
W1	Water Resources	Ensure run-off from State highways complies with RMA requirements	Refer to Section 4 and Appendix C of the AEE contained in Volume I of the regional resource consent documentation.
W2	Water Resources	Limit the adverse effects of run-off from State highways on sensitive receiving environments	Refer to Section 6 of the AEE contained in Volume I of the regional resource consent documentation.
W3	Water Resources	Ensure stormwater treatment devices on the network are effective	Treatment devices (such as wetlands) are proposed for all stormwater along the alignment.
W4	Water Resources	Optimise the value of water management through partnerships with others	Determining appropriate stormwater and erosion and sediment control discharge treatment devices have been developed in consultation with Iwi partners.
ES1	Erosion and Sediment Control	Ensure construction and maintenance activities avoid, remedy or mitigate effects of soil erosion, sediment run-off and sediment deposition.	Site specific erosion and sediment plans will be in place.
ES2	Erosion and Sediment Control	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	Site specific erosion and sediment plans will be in place.
ES3	Erosion and Sediment Control	Use bio-engineering and low-impact design practices where practicable.	Site specific erosion and sediment plans will be in place.
SR1	Social Responsibility	Enhance and contribute to community cohesion	The Project has engaged with the community and key stakeholders in a collaborative, proactive and transparent manner using various tools and channels including working groups, the Community Liaison Group (CLG), Regional Land Transport Committee, Newsletters and Public Information Events. Refer to Section 5 of the AEE (Volume I of the Regional Resource Consent Documentation) for further details.
H1	Culture and Heritage	Proactively limit the disturbance of significant cultural and heritage features along State highways	Addressed through both the CEDF and accidental discovery conditions. An archaeological authority is being sought for the project.
E1	Ecological Resources	Promote biodiversity on the State highway network	A comprehensive planting programme is proposed as part of the project to ensure a net gain in biodiversity.
E2	Ecological Resources	No net loss of native vegetation, wetlands, critical habitat or endangered species	A comprehensive ecological response programme is proposed as part of the Project to ensure a net gain in biodiversity. The Ecological Management Plan outlines this ecological response and associated protocols to be followed to achieve the specified outcomes.

E3	Ecological Resources	Limit the spread of plant species	The Planting Establishment Management Plan outlines the management processes for weed control and pest management contained in Chapter 4 of the EMP (Volume VII of the Regional Resource Consent Documentation).
S1	Spill Response and Contamination	Design stormwater control and retention devices that can accommodate spills in areas of high environmental risk.	Spill Response Kits will be provided and maintained across the Project site. In addition, each Contractor operating within the Project corridor will be required to prepare and follow an emergency spill response plan that addresses stopping the spillage, containing the spill, clearing the area, calling for assistance, cleaning up the spill, and reporting the spill.
S2	Spill Response and Contamination	Ensure the removal, placement and disposal of contaminated soils is achieved in accordance with best practices	A Contaminated Soil Management Plan (CSMP) is provided in Volume VII of the Regional Resource Consent Documentation. The CSMP informs the earthworks contractor of the requirements in regard to the protocols and management of unexpected contaminated materials discovered.
RE1	Resource Efficiency	Manage energy consumption and waste associated with Transit's business in a cost effective and sustainable manner	Fuel consumption shall be significantly reduced through establishing the Hugh Akers Quarry which is located in close proximity (within 2km) to the Project site. Priority has been given to sources of aggregate that are as close to the project as possible, sites at the eastern and western ends have been incorporated. Surplus earthwork material shall be permanently placed throughout the Project alignment at the proposed spoil site locations (identified in Section 2.5.1). This avoids offsite disposal of earthworks material, minimising costs and fuel consumption through reduced haulage distances.
RE2	Resource Efficiency	Make resource efficiency an integral part of all State highway activities	The vertical garde of the carriageway steepens to 10% north of the Eco Bridge (BR03) between CH 4400 and CH 6200 in order to help optimise cut/fill volumes across the Project. This also minimises the environmental impact of the State highway on the QEII covenanted land. The vertical alignment of the carriageway has also been designed having regard to the wind turbine zones of influence within the Te Āpiti Wind Farm to ensure the least impact on their operations. Pavement surfacing and impervious areas have been carefully considered to utilise resources efficiently.
C1	Climate Change: Adaptation and Mitigation	Manage increased hazards of climate change impacts on State highway infrastructure	The stormwater management design and devices proposed have been informed by the High Intensity Rainfall Design System (HIRDS) and adjusted for climate change to 2120. These climate change assumptions were also adopted in the Hydrology and Hydraulics Assessment to inform the design of bridge structures and potential effects of the Project on the environment.
C3	Climate Change: Adaptation and Mitigation	Mitigate activities associated with the construction, operation and maintenance of State highways to affect a net reduction of GHG from transport.	The Project aims to achieve a silver rating under Greenroads. The Greenroads Rating System is an international sustainability rating system specifically relevant and weighted for surface transportation infrastructure projects. Greenroads Credits that directly relate to this Construction Environmental Management Plan can be found in Appendix E.
V1	Vibration	Plan and design new State highways to avoid or reduce adverse vibration effects	Prior to the commencement of construction works activities, a Construction Noise and Vibration Management Plan shall be prepared in accordance with designation Condition 14.

V2	Vibration	Mitigate vibration where levels are unreasonable and exceed relevant criteria set in New Zealand or internationally accepted thresholds	Construction vibration shall comply with NZS 6803:1999 and, as far as practicable, comply with Table 3: Vibration Criteria of Designation Condition 27.
V3	Vibration	Avoid or reduce, as far as is practicable, the disturbance to communities from vibration during construction and maintenance.	Prior to the commencement of construction works activities, a Construction Noise and Vibration Management Plan shall be prepared in accordance with designation Condition 14 to avoid or reduce any disturbance to communities from vibration during construction.

3.4.2 Greenroads

Greenroads is an international, independent third-party evaluation against a set of mandatory requirements and voluntary credits. Each voluntary credit has points associated with them. The goal of this Project is to achieve at a minimum silver rating which requires the Project to meet the requirements of the 12 compulsory credits and to earn a minimum of 50 points from the voluntary credits. Greenroads Credits that directly relate to this Construction Environmental Management Plan can be found in Appendix F.

While the Greenroads Management Plan does not form part of the Construction Environmental Management Plan, many of the Greenroad credits relate to matters addressed in the sub management plans, including ecological impacts, communication management, construction erosion and sediment control plan, landscape management and construction noise and vibration.

More detail about how this project will meet the silver certification is set out in the Te Ahu a Turanga; Manawatū Tararua Highway Greenroads Management Plan, and further information on the Transport Agency's use of the Greenroads tool can be found at https://nzta.govt.nz/about-us/about-the-nz-transport-agency/environmental-and-social-responsibility/state-highway-approach-to-environmental-and-social-responsibility/greenroads/

4 Project Implementation and Operation

This section of the CEMP outlines how the identified environmental and social requirements in Section 3 will be managed to achieve the commitments in Section 1.

The objective of this section is to address designation conditions 14(d)(i and iv to x) and the proposed conditions of the regional consent.

The information provided below is intended to show how the requirements of the designation will be met and to support the Regional Council resource consents based on the information available at the time of writing. This information shall be updated as the design progresses and will further evolve during the construction period for the Project.

4.1 Roles and Responsibility

This section responds to proposed designation condition 14(d)(i).

The roles and responsibility to implement the CEMP are set out in table below.

Table 4-1 Roles and Responsibilities for Implementing the CEMP

Position	Contact	Key CEMP Responsibilities
Transport Agency Owner Interface Manager	Lonnie Dalzell	▪ The Transport Agency's representative with overall responsibility for the Project
Project Director	Mark Evans	▪ Responsible for all day to day operations on the Project
Construction Manager	Tony Adams	▪ Responsible for the Project engineers and supervisors, ensuring they are aligned in their approach to construction and environmental compliance
Environmental Manager	Lorraine Pennington	▪ Co-development and implementation of the CEMP and management and mitigation plans ▪ Onsite environmental compliance auditing ▪ CS VUE[1] condition manager (compliance management system) ▪ Main contact for Territorial Authorities and Regional Council in relation to environmental compliance matters
Planning Manager	Damien McGahan	▪ Co-development of the CEMP and management and mitigation plans ▪ Support compliance auditing of CS VUE
Design Manager	Tim Watterson	▪ Ensuring requirements of the CEMP and sub plans are incorporated into the detailed design of the project
Stakeholder and Communications Manager	Nick Maybury	▪ Communication to stakeholders and the public throughout the construction phase ▪ Implementation of the complaints operating procedure, maintenance of the complaints register including the use

[1] Refer to section 3.5 for more details of CS Vue.

		of the Transport Agency Customer Relationship Management System

4.2 Training

This section responds to proposed designation condition 14(d)(iv).

All construction staff will be adequately skilled and experienced for the work they will undertake. Training will be provided to ensure all staff are made aware of their environmental obligations on the Project. Training records are captured in the parent companies human resource records. The Project training that will be delivered to staff is outlined in Table 4-2.

Table 4-2 Training to Implement the CEMP

Type of Training	Purpose	Convenor	Attendees
Staff induction (including cultural induction)	Induct new staff to the project, providing a general overview to the cultural and environmental values, risks, stakeholders, sensitive receptors and contacts for the project. Provide cultural history and context to the project and the area including cultural protocols and cultural requirements and the background to these.	Alliance Project Manager and the Kaiārahi	All staff including sub-contractors
Envirowise	Enviro 101 for construction staff including how to manage spills in accordance with the Hazardous Substances and Spill Response Plan.	Environmental Manager or delegate	Construction and earthworks personnel
Archaeological training	Train staff involved in earthworks to understand what to do in the event of discovery of any bones or artefacts during land disturbance activities.	Named archaeologist Kaiārahi and cultural monitors	Construction and earthworks personnel
Erosion and Sediment Control training	Train staff as to the importance of erosion and sediment control, why controls are in place, what should happen if a control is damaged. Specialised training will be provided to staff who are involved in the construction, maintenance and decommissioning of erosion and sediment control devices.	Environmental Manager or delegate	Construction and earthworks personnel
Contaminated land training	Train staff in what to look out for in regard to contaminated land, and what to do if it is discovered.	Environmental Manager or delegate	Construction and earthworks personnel

4.3 Emergency Management Procedures

4.3.1 Emergency Contacts

This section responds to proposed designation condition 14(d)(viii).

Table 4-3 sets out the emergency contact details for internal staff and external organisations.

Table 4-3 Emergency Contact Details

Role	Name	Organisation	Phone	Email
Internal				
24-hour number	On call duty manager	Project Alliance	TBC	TBC
Construction Manager	Tony Adams	Project Alliance	TBC	TBC
Environmental Manager	Lorraine Pennington	Project Alliance	TBC	TBC
Community Stakeholder Manager	Nick Maybury	Project Alliance	TBC	TBC
Owner Interface Manager	Lonnie Dalzell	NZTA	TBC	TBC
Project Director	Mark Evans	Project Alliance	TBC	TBC
Archaeological	TBC	Project Alliance	TBC	TBC
External				
Emergency Services	-	Police, Fire, Ambulance	111	TBC
Heritage New Zealand	North Island Contact	HNZ	04 494 8320	TBC
Regional Authority After Hours Line	Horizons Regional Council		0508 800 800	TBC
Local Authority After Hours Line	Palmerston North City Council		06 356 8199	TBC
	Manawatū District Council		06 323 0000	TBC
	Tararua District Council		06 374 4080	TBC

4.3.1 Environmental Incident and Emergency Management Procedures

This section responds to proposed designation condition 14(d)(v).

Environmental incidents will be controlled and managed through the Erosion and Sediment Control Plan, Environmental Monitoring and Management Plan and a construction Pollution Prevention Plan (PPP) for the identification and control of hazards and environmental incidents.

These procedures will be developed and communicated prior to the commencement of construction works and shall be updated to comply with all relevant designation conditions and Regional Council resource consent conditions. These shall be updated within the CEMP as the Project progresses.

4.4 Monitoring and Review

Condition 14(d)(xii) details that the CEMP must include methods for amending, augmenting and updating the CEMP.

To ensure the CEMP and its associated sub plans are implemented effectively, a monitoring and review process will be followed so that new and emerging risks can be identified early, and existing risks are continually managed in the best possible manner as the project progresses.

4.4.1 Environmental Monitoring

Section 4.4.1 responds to proposed designation condition 14(d)(vi to vii).

4.4.1.1 Compliance Monitoring

The Transport Agency requires compliance against all designation and consent conditions to be recorded into CS-VUE. This will be undertaken by the Environmental Manager or delegate and will be updated regularly.

The Erosion & Sediment Control Plan (Volume VII of the Regional Consent Documentation) details the specific monitoring requirements proposed onsite. Erosion and sediment control monitoring will be undertaken as detailed in the above plan. This will include (but is not limited to), weekly site walkovers/inspections of erosion and sediment controls, pre-rain event inspections and post rainfall event inspections.

The EMP also recommends various monitoring measures to record compliance and performance outcomes of the methods outlined to avoid, minimise, offset and compensate potential adverse ecological effects of the Project. These measures are specific to each ecological and biodiversity value. Further information shall be provided at a later date as the Project progresses.

All inspections will have a report generated that will be saved into the project document management system. For any issues noted the report will include identifying any opportunities for improvement and corrective actions required.

Monthly and annual reporting is proposed as part of the proposed regional consent conditions. These details will be confirmed.

4.4.1.2 Audits

Environmental compliance audits of the Project will be undertaken periodically during construction by the Environmental Manager or delegates. The objectives of the audits are to determine if the environmental management requirements are being implemented and maintained, assess the effectiveness of the environmental controls being applied, and identify areas of non-compliance or improvement opportunities so that corrective actions can be undertaken.

Consent compliance audit reports will be completed annually, and any issues noted in the audit will include identifying any opportunities for improvement and corrective actions required.

Annual reports of compliance monitoring will be provided to Horizons Regional Council and key stakeholders by month of July each year during the construction phase. The results of these reports and audits will be used as a learning outcome to ensure that best practice continues to be adopted on the ground and reflected where required in updates to the CEMP.

The Environmental Manager and Construction Manager have responsibility for ensuring that timely corrective actions are taken to remedy deficiencies found during any inspections and audits.

An audit schedule is attached at Appendix F.

4.4.1.3 Corrective and Preventive Action

The corrective and preventative action process aligns with the Quality Management Plan.

Corrective and preventative actions will be identified through compliance monitoring, audits and complaints/feedback processes. These actions will be assessed and when relevant discussed with the Horizons Regional Council. The CEMP and its sub management and mitigation plans, and operating procedures will be updated as required.

4.5 Site Security Arrangements

This section responds to proposed designation condition 14(d)(ix).

During construction, the Project will maintain secure fencing (of an equal standard to existing fencing) to neighbouring properties throughout the works – either through installing permanent fencing where the boundary changes and the fence can be immediately constructed; or using temporary fencing during construction.

Site security measures are to be maintained to neighbouring properties during construction in consultation with affected owners.

4.6 Discovery Protocols

In accordance with condition 14(d)(x), an accidental discovery protocol shall be prepared in consultation with the Project Iwi Partners and Heritage New Zealand Pouhere Taonga or addressed through the archaeological authority in accordance with designation condition 31.

The archaeological authority is intended to provide methods for ensuring that any discoveries made follow the correct procedures to protect the find from further damage and to comply with the Archaeological Authority as granted for the project.

Appendix G generally describes how any potential discoveries will be treated. This commences with a contractor's briefing (then included in site inductions for all staff going forward) on what constitutes an archaeological/historic heritage material; the appropriate procedures for follow if such materials are potentially uncovered; contact information of the relevant agencies and completion of site records.

5 Management Review

The objective of this section is to address designation condition 14(d)(xii).

Each month, the Alliance will develop a summary of the cultural, environmental and consent compliance activities and status (monthly reporting).

Annually (or when any major changes to legislation or policy occurs), a management review of the CEMP and the sub management plans will be undertaken. This review will be led by the Project Director and will include the Environmental Manager and Transport Agency Owner Interface Manager. The review will focus on how environmental compliance is being managed and achieved and identifying areas of improvement.

During the construction phase of the Project external spot reviews are likely to occur. These will come in the form of the Contract Management Review process administered by the Transport Agency. The review could be one of the following:

- Contract management reviews, or
- Lessons learnt reviews, or
- Special purpose audits.

Further information on the type of reviews is available at https://www.nzta.govt.nz/about-us/tenders-and-contracts/contract-management-reviews/

A

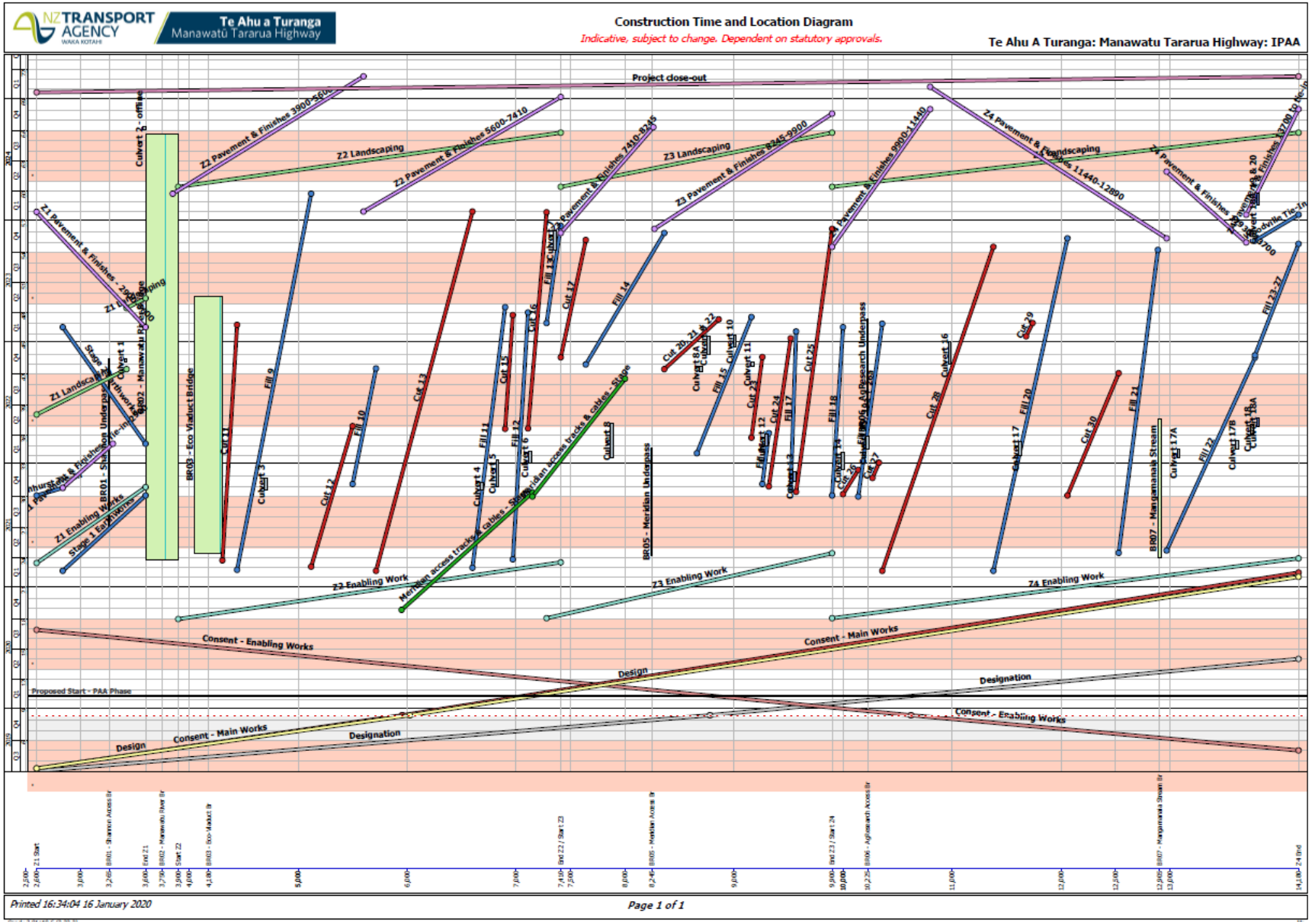
Appendix A – Proposed Designation Condition 14

Condition Number	Designation/NoR Conditions
14(a)	As soon as practicable, and prior to the commencement of construction works, the Requiring Authority must prepare a Construction Environmental Management Plan.
14(b)	The objective of the Construction Environmental Management Plan is to set out measures that must be implemented to comply with the designation conditions to appropriately remedy or mitigate any adverse effects of construction work activities and, in the case of the Ecological Management Plan, enabling works.
14(c)	The Construction Environmental Management Plan must accompany any relevant outline plan prepared in accordance with Condition 9 and also include the following suite of management plans where they address works that are the subject of the outline plan(s): ix) Communications Management Plan in accordance with Condition 11;
	x) Landscape Management Plan prepared in accordance with Condition 17;
	xi) Ecological Management Plan prepared in accordance with Condition 24;
	xii) Construction Noise and Vibration Management Plan prepared in accordance with Condition 28;
	xiii) Construction Traffic Management Plan prepared in accordance with Condition 29;
	xiv) Tangata Whenua Values Monitoring and Management Plan prepared in accordance with Condition 30;
	xv) Western Car Park Construction Management Plan prepared in accordance with Condition PN2; and
	xvi) Western Car Park Reinstatement Management Plan prepared in accordance with Condition PN3.
14(d)	The Construction Environmental Management Plan must include (as a minimum): iv) the roles and responsibilities of staff and contractors;

	v) The environmental outcomes anticipated by: D) the Requiring Authority's 'Environmental and Social Responsibility Policy' (2011) and relevant regional and district plan rules and associated performance standards and conditions (including those imposed by other authorisations or permissions), E) the Cultural and Environmental Design Framework; and F) relevant performance standards and conditions of the designation.
	vi) A description of the Project including: G) the enabling and construction works programmes and staging approach;
	H) enabling and construction works methodologies;
	I) a detailed site layout;
	J) the design and management specifications for all earthworks on-site, including disposal sites and their location;
	K) the design of temporary lighting for enabling and construction works and construction support areas;
	L) the approach to the management of enabling and construction works waste, taking into account the waste management hierarchy to reduce, re-use, recycle and recover, along with responsible disposal of residual waste;
	xiii) a description of training requirements for all site personnel (including employees, sub- contractors and visitors);
	xiv) environmental incident and emergency management procedures;
	xv) environmental complaints management measures;
	xvi) compliance monitoring, environmental reporting and environmental auditing, including a requirement to provide the results or outcomes of monitoring, reporting and auditing to the Responsible Officer(s);
	xvii) the details for emergency contact personnel who must be contactable 24 hours, 7 days a week;
	xviii) site security arrangements;
	xix) an accidental discovery protocol, where required by and in accordance with Condition 31;
	xx) a requirement for a copy of the Construction Environmental Management Plan to be held at all site offices;
	xxi) methods for amending, augmenting and updating the Construction Environmental Management Plan;
14(e)	The Construction Environmental Management Plan must be updated to incorporate any requirements of Regional Council resource consents.

B

Appendix B – Construction Time and Location Diagram


NZ TRANSPORT AGENCY
Te Ahu a Turanga Manawatū Tararua Highway
Construction Time and Location Diagram
Indicative, subject to change. Dependent on statutory approvals.
Te Ahu A Turanga: Manawatu Tararua Highway: IPAA
Project close-out
Z1 Pavement & Finishes - 2900
Z1 Landscaping
Z1 Enabling Works
Stage 1 Earthworks
Culvert 1
Culvert 2a - offline
Z2 Pavement & Finishes 3900-5600
Z2 Pavement & Finishes 5600-7410
Z2 Landscaping
Z3 Pavement & Finishes 7410-8245
Z3 Pavement & Finishes 8245-9900
Z3 Landscaping
Z4 Pavement & Finishes 9900-11440
Z4 Pavement & Finishes 11440-12890
Z4 Pavement & Finishes 12890-13700
Z2 Enabling Work
Z3 Enabling Work
Z4 Enabling Work
Meridian access tracks & cables - Stage
Consent - Enabling Works
Consent - Main Works
Design
Designation
Proposed Start - PAA Phase
BR01 - Shannon Underpass
BR02 - Manawatu River Bridge
BR03 - Eco Viaduct Bridge
BR05 - Meridian Underpass
BR06 - AgResearch Underpass
BR07 - Mangamanaia Stream
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C

Appendix C - Enabling and Construction Works Methodologies

Appendix C outlines the specific anticipated construction methodology to be employed for the bridge structures (including Culvert 8).

Site preparation works

The following site preparation works will be undertaken

1. Delineation and signage of environmentally sensitive areas for protection during site works
2. **Fencing** – Staged fencing of the works area will be required with landowner consultation to maintain access where required or until the area is required to be used.
3. Staged and progressive installation of erosion and sediment control measures in accordance with approved ESCP / SSESCPs.
4. **Staged and progressive site clearance and set out** - to be undertaken in accordance with the Project CEMP and associated management plans (particularly the Ecology Management Plan). Generally, the site set out will involve the following steps:

    - The extent of earthworks will be set out by the Project surveyors. It is intended to use machine control equipment which will minimise survey set-out requirements. This will determine the extent of topsoil stripping and also the location of perimeter bunds and other environmental controls.
    - Any vegetation clearance will be undertaken adhering to the necessary environmental controls.
    - Topsoil will be stripped to use in perimeter bunds and in construction of other environmental controls. The stripped area will be kept to a minimum until all controls in the area are completed. Environmental controls are to be constructed as per the approved ESCP (provided in Volume III). All perimeter bunds will be progressively stabilised with grass seed and hay. Topsoil bunds will be no greater than 2.5 m in height. Tracking with heavy machinery on topsoil bunds will be avoided where possible or minimised. Where it is not practical to strip topsoil for use in perimeter bunds, the topsoil will be carted to the nearest designated stockpile area, with topsoil from forest/ indigenous vegetation areas and from farmland stockpiled separately. Stockpiles are to be shaped to be free draining to minimise water ingress and will be subject to measures described in the ESCP.

Earthworks

For the Project earthworks as described at section 5.5.1, the following methodologies will be employed:

I. Fill methodology

- Mass haulage routes will be used to transport equipment and material to the fill sites. These are located within the Project.
- Following stripping, undercutting of embankments will be carried out which includes cleaning out of gullies to prepare the foundations for culverts and fills. In general access will be narrow and restrictive therefore smaller plant will be used for the clean out operations. Small access tracks will be constructed to the base of the gullies to allow for digger access. Where streams are present in the base of gullies, detailed stream diversion plans will be made for each specific scenario and included in the SSESCPs. Culverts will be constructed off line either allowing the stream to remain in its existing bed until culvert construction is complete and it can be diverted into the culvert or via the construction of a temporary division or piping. Undercut material and gully muck out material will be transported to disposal areas by dumper trucks.

- On completion of the fill foundation preparation, that area will be inspected by the design representative and engineers' representative and proof rolled[2] using a 40t articulated dump truck (ADT) or equivalent plant.
- There will be no trafficking over soft silts or sensitive foundation materials to prevent any damage to the prepared fill surface.
- All fill surfaces will be shaped to encourage positive draining off the fill and sealed at the end of each day using a smooth drum roller or rubber tyred machine.
- Cohesive fill materials will be placed in layers.
- Exposed fill surfaces will be permanently (by planting or finishing with indurate material - see earthworks finishing section below) or temporarily stabilised (by rolling or other techniques described in the ESCP) as soon as possible to minimise the potential scouring and erosion of newly placed fill.
- Any erosion that should occur on the fill areas will be removed as necessary and replaced with suitable structural fill.
- Fill will be compacted with appropriate plant and equipment to achieve the necessary compaction standards.
- Cohesive fill that is wet of optimum moisture content (i.e. too wet) will be mechanically dried by disking and air drying.

II. Cut methodology

- In cut areas, overburden will be stripped initially by excavator and hauled to the disposal areas by dumpers. As the cuts deepen, motor scrapers will be used to cut and transport material where space allows. Cuttings within the mudstone is expected to be removed by ripping and excavating. Blasting is not anticipated as being required.
- The split between scraper and excavator / dump truck earthworks is estimated to be approximately 27% and 73% respectively. The volumes and material types anticipated (on an indicative basis), are noted in Table 5-1 below.

Table 5-1 Anticipated Cut Method by Volume and Material Type

	Total	%	O/D	Mudstone	Conglomerate	Other
Scraper	1,700,000	27		750,000	950,000	
Excavator and Truck	4,500,000	73	900,000	530,000	1,140,000	1,930,000

Table Note: The total volume of handled material is greater than the total earthwork volume due to double handling for the conditioning of material.

- Drainage will progressively be installed at each bench height to prevent the need for accessing benches once the excavation has progressed to lower levels. Cut slopes are anticipated to be left bare.
- Cut material will be transported to fill areas placed and recompacted in layers to the underside of the pavement formation. Excess and unsuitable material from the cuts will be transported to spoil sites, placed in layers and track rolled with dozers.

III. Earthwork finishing works

- Following the completion of earthworks, topsoil will be re-spread on the batters and berms.

[2] This is a practice to examine the mass response of subgrade to vehicle-type loads before pavement layers are constructed. It is performed by driving a selected heavy vehicle over designated areas of the soil surface.

- Any residual fill material which is deemed suitable by the project ecologist, will be made available for ecological works.
- Batters will be trimmed then tracked to leave grouser indents[3] for the topsoil to stick to or alternatively a rock bucket on the excavator can be used to scour the surface.
- If the batter is steep and prone to topsoil slipping then mulch may be used in addition to topsoil to prevent slumping.
- Topsoil will be compacted with either a bulldozer or a digger.
- All exposed topsoil will be either hydro seeded or mulched as soon as practicably possible.
- For larger batters, top soiling will be done progressively to minimise the risk of erosion.
- When top soiling swales (conveyance swales and treatment swales) for network drainage, additional stabilisation measures such as biodegradable matting will be used to prevent erosion until grassing has been established. Vegetation planting will progressively be undertaken as construction works are completed in each area.

IV. Paving and finishing works

- Once cuts and fills reach pavement formation level they will be 'handed over' to the pavement construction team who will carry out final trim of the subgrade surface and construction of the pavements on road, stopping areas, SUP and within the Manawatū Gorge Scenic Reserve carpark.
- Construction of stormwater management devices such as basins, swales and culverts form part of the Project's bulk earthworks activities and will follow the general construction methodology outlined above.

Spoil Disposal

The following indicative methodology will be used in relation to the spoil disposal areas:

- ESC - GD05 compliant erosion and sediment controls for each of the disposal sites will be installed prior to spoiling operation beginning (approved by way of SSESCPs). This will likely include underdrainage and cutoff drains to be used as clean water diversions. Additionally, all-terrain watercarts will be used on open faces of the disposal surface to manage dust.
- Access and set out - Generally, access to the lowest point of the disposal area will be constructed first to allow for disposal from the lowest point working the way up. For the large disposal areas, the disposal site will be opened in stages from the lowest point. Topsoil strip, clean water diversions and erosion and sediment controls will be progressively installed and expanded in stages ahead of the spoil placement to limit the amount of open area.
- Stripped topsoil, where possible, will be put to the edges of the disposal areas to be reused to progressively close and remediate disposal areas as they are infilled.
- Infill - Disposed material will be placed in layers by ADT and dozers will be used to shape and roll/flatten the material. Grade will be maintained on the disposal surface to direct water to the sediment and erosion control devices.
- Finishing works - The upper 1m of the disposal area will be compacted to seal the spoil area and prevent water ingress and saturation of the spoil. The finished surface of the disposal will be contoured to match into the existing topography, direct water to shed appropriately and be suitable for pasture farming operations. Topsoil will be progressively re-spread on the disposal slopes and planted to enable progressive closure.

[3] This is a practice where a device is used to increase soil traction. It results in protrusions in the soil similar to conventional tyre treads.

- When a depression or valley is filled with surplus fill material the following methodology will be followed. A cut off drain around the fill area that temporarily collects and diverts clean water into the existing stream downstream of the fill area will be constructed. In the fill area, the construction team will commence filling, collecting and treating any stormwater runoff prior to discharge to the existing stream (downstream and beyond the cut off drains). Once the fill construction is complete, the stream will be constructed over the top and tied back to the stream (up and downstream of fill) and cut off drains will be removed.

Methodology for stream works

The proposed stormwater design results in some stream works being undertaken for the necessary treatment devices, stream diversions and culverts. Any stream works will be undertaken in accordance with SSESCPs. Construction works will take place “in the dry” and “offline” i.e. with flows diverted around the works site.

Diversions will be constructed and stabilised with geotextile lining, or similar. Once constructed, flows from the original channel will be diverted using sheet steel or sand bag dams and the channel will be isolated upstream and downstream.

The Project ecologist will then undertake fish salvage within the now off-line section of stream and then the stream can be dewatered to a sediment control device. The channel will be cleaned out and any unsuitable material will be transported to the nearest spoil site. Any temporary stockpiles will be located away from the floodplain of the stream.

Once the works are complete and the new flow channel stabilised, the stream can be redirected into its new flow path. A sheet steel or sandbag dam will be installed across the upstream end of the diversion to divert stream flows into the new channel / pipe. The diversion will be allowed to drain by gravity then a sediment control measure will be installed at the downstream end and the diversion will be filled.

With regard to stream crossings, the following methodologies will generally be applied:

- Direct crossings (when a fill structure crosses a stream at 90 degrees (or close) resulting in the installation of a culvert to provide cross drainage)
- **Method:** Construct culvert off line and tie back to original stream diverting water from original stream into the culvert. Fill in existing stream.
- Sidling crossing (when a fill structure crosses a stream at an oblique angle causing installation of culvert and a stream diversion)
- **Method**: Construct culvert off line at 90 degrees (or close) across the fill, construct new stream from culvert inlet /outlet along foot of proposed batter / fill slope to original stream. Tie into original stream diverting water from existing stream into the culvert. Fill in existing stream.
- Sidling fill (when a fill structure causes parts of a stream to be filled but does not cross the stream)
- **Method**: construct stream diversion off line at foot of proposed batter / fill and then tie back to original stream diverting water from original stream into the stream diversion. Fill in existing stream.

Construction Methodology – Specific

This section outlines the specific anticipated construction methodology to be employed for the bridge structures (including Culvert 8).

Construction Approach for BR01, BR05 and BR06

The general construction approach described in Figure 5-3 below is expected to be the same for all three underpasses (BR01, BR03, BR06). The intent is that the bridges will be constructed in sequence commencing with BR01 and working east. The construction of each structure is expected to typically take 27 to 30 weeks. BR06 will be built within an embankment up to 20m high. A nearly 200 m long culvert pipe will be constructed beneath the underpass bridge site. Fill over this bridge will vary in depth from 1.6 m to 2.2 m, which is substantially more than BR01 and BR05; this is to accommodate within the fill longitudinal network drainage over the bridge.

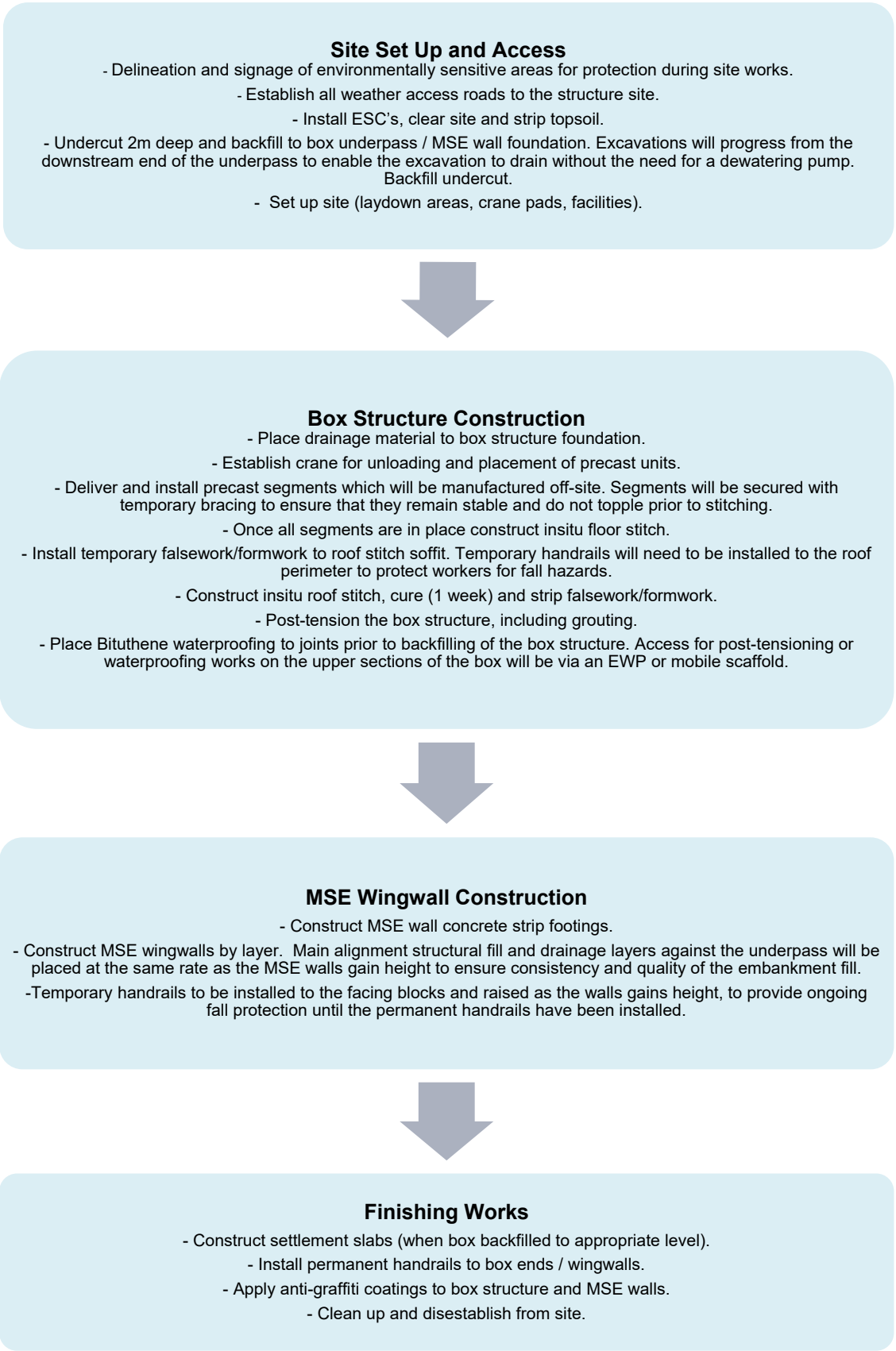


Figure 5-1 Construction Methodology for BR01, BR05 and BR06

Construction Approach for BR02 - Manawatū River Bridge

The construction of BR02 requires significant temporary works to provide access to each of the piers and abutments, along with access to support the superstructure construction.

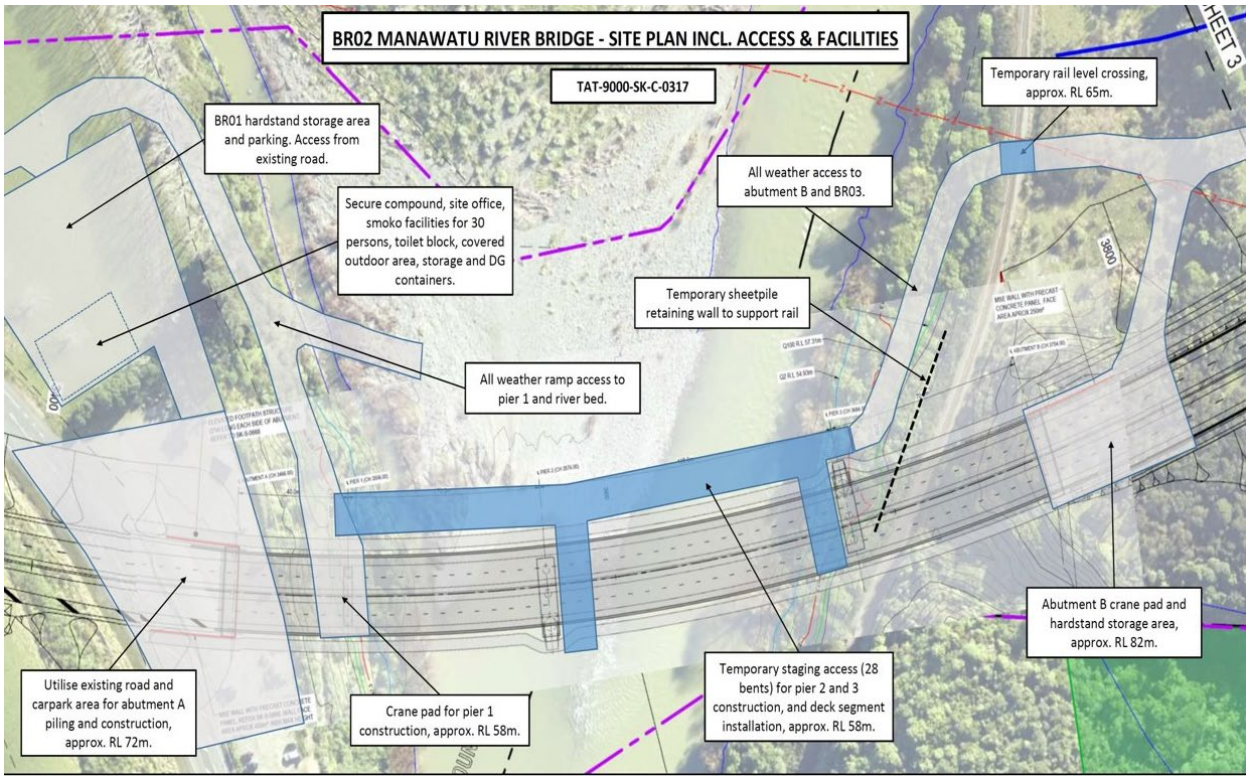


Figure 5-2 BR02 Construction

The necessary temporary access for BR02 will be a 20% grade ramp, requiring earthworks to enable small vehicles and excavators to access the river bed for the maintenance of the staging as well as placement of the rip rap. This access will be in place for the duration of the works and removed following construction, i.e. it will be insitu for a 3-4-year period.

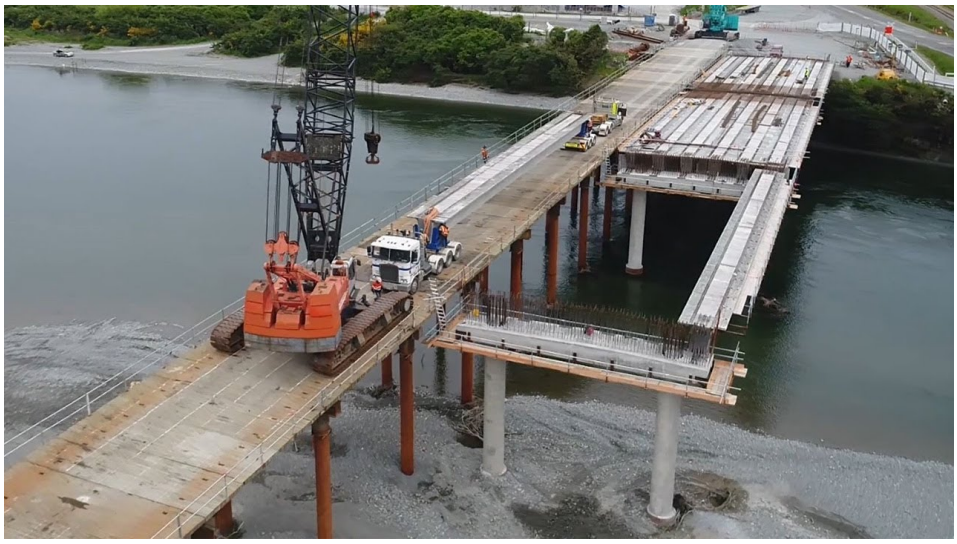


Figure 5-3 Example of Temporary Staging required for BR02

Temporary staging will consist of a series of 600 mm hollow circular steel piles installed at 9 m intervals into the river bed. Installation of the piles will be via crane and piling rig. Pile installation will start from the southern abutment access track at pier 1. Following installation of each pile set, a section of staging bridge deck will be installed, and the piling rig will move forward onto the staging to install the next set of piles from on top of the staging. In this manner, plant operates from on top of the staging and not within the river bed.

The temporary staging widths and grades have been designed to accommodate the cranes and loads expected to be required for the construction of the bridge. Temporary staging will be installed across the river channel to elevate the temporary working platform above the 1 in 100-year flood level. Navigation requirements on the river during construction will be agreed with Horizons and the temporary staging will be designed accordingly.

Figure 5-4 Example of Coffer Dam in water required for BR02

A temporary sheet pile coffer dam (such as that shown in Figure 5-4) is required at Pier 2 of BR02 and will be approximately 16 m by 16 m in size.

The sheet pile coffer dam will be installed with the use of a crane and vibrating or impact hammer operating from the staging platform (once constructed). The top level of the sheet pile coffer will coincide with the 2-year flood level. The sheet piles will overtop in larger floods and will require pumping out if such an event were to occur.

Once the sheet pile coffer dam is fully enclosed, it will be pumped out, the base excavated, and a thick blinding layer of concrete will be poured within the base. This concrete layer will be used to control water seepage from the floor of the working area and also to create the piling gate. Excavated material will be removed by truck on top of the staging. The piles will be constructed from within the cofferdam penetrating through the concrete blinding on the floor.

The construction programme for BR02 is approximately 42 months, including the site access and temporary staging works. The construction methodology for BR02 is described below in summary in Figure 5-5.

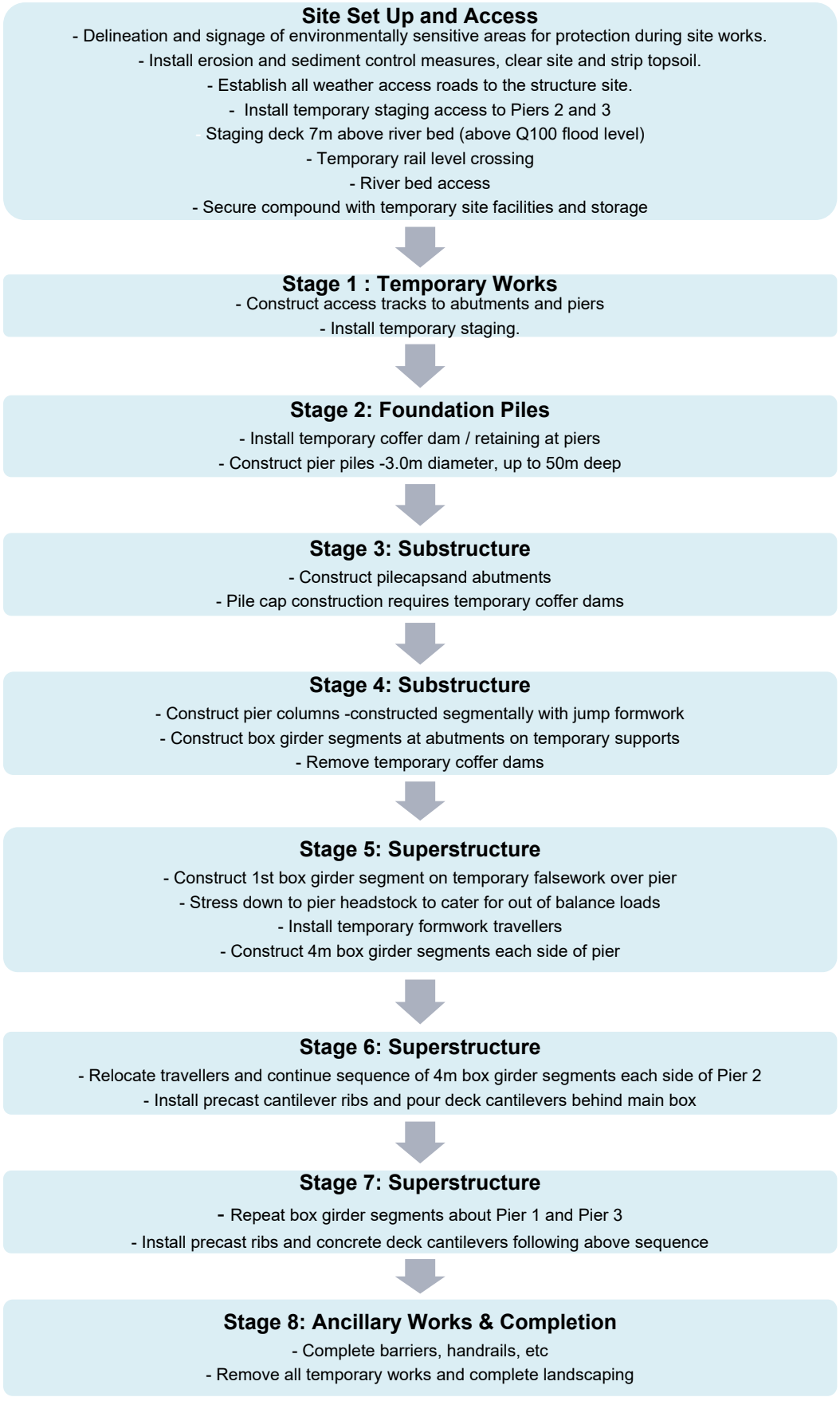


Figure 5-5 Construction Sequence for BR02

Construction Approach for BR07 – Mangamanaia Stream Bridge

The construction programme for BR07 is approximately 12 months including MSE wall construction. The construction methodology is described below in Figure 5-6.

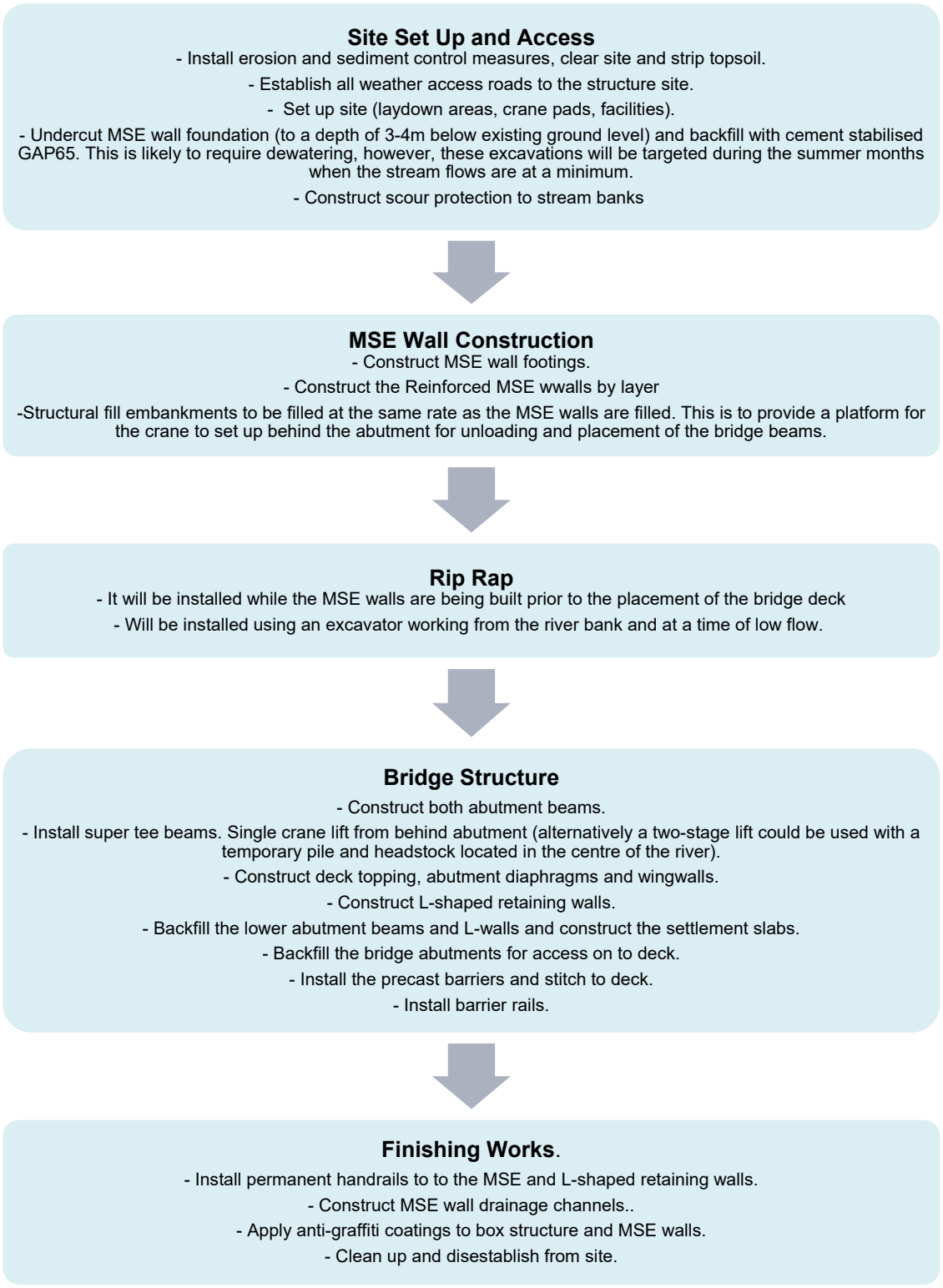


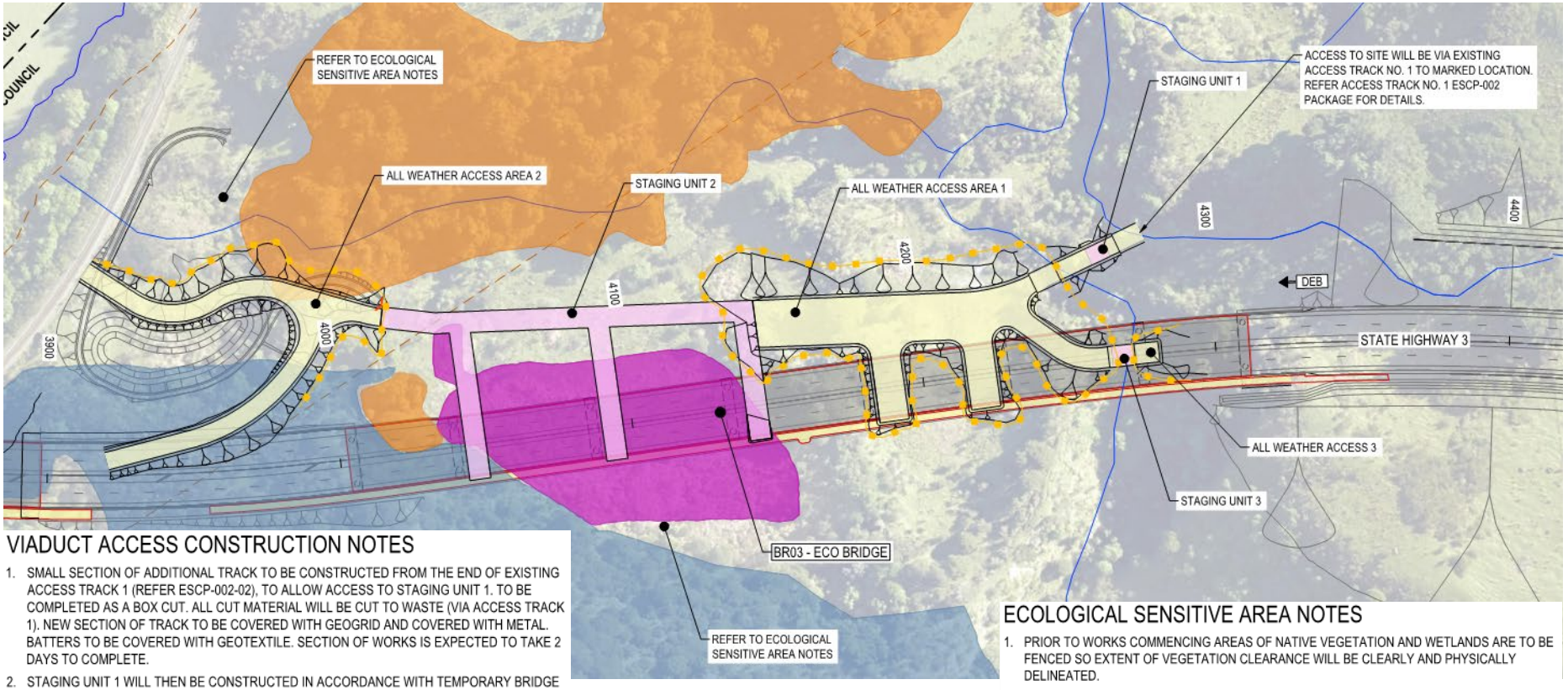
Figure 5-6 Construction Methodology for BR07

Construction Approach for BR03 – Eco Bridge

Construction of BR03 requires temporary access to each pier and abutment locations. This has been developed using a combination of granular causeways and elevated staging, with the existing and future environment in mind. The construction access will consist of:

- All weather access to the piers and abutments;
- Granular /rock-fill causeway will be used in areas outside of sensitive vegetation;
- Temporary staging will be used at the stream crossings to limit the earthworks required in the stream bed; and
- Temporary staging will be used across sensitive vegetation types to limit the access footprint and disturbance. The causeway and staging will be positioned to minimise disturbance of the valued ecological areas (including swamp maire). Final positioning will be undertaken during on-site inspection with an ecologist.

Construction access is shown in Figure 5-7 below.



VIADUCT ACCESS CONSTRUCTION NOTES

1. SMALL SECTION OF ADDITIONAL TRACK TO BE CONSTRUCTED FROM THE END OF EXISTING ACCESS TRACK 1 (REFER ESCP-002-02), TO ALLOW ACCESS TO STAGING UNIT 1. TO BE COMPLETED AS A BOX CUT. ALL CUT MATERIAL WILL BE CUT TO WASTE (VIA ACCESS TRACK 1). NEW SECTION OF TRACK TO BE COVERED WITH GEOGRID AND COVERED WITH METAL. BATTERS TO BE COVERED WITH GEOTEXTILE. SECTION OF WORKS IS EXPECTED TO TAKE 2 DAYS TO COMPLETE.
2. STAGING UNIT 1 WILL THEN BE CONSTRUCTED IN ACCORDANCE WITH TEMPORARY BRIDGE STAGING CONSTRUCTION METHODOLOGY.
3. ONCE STAGING UNIT 1 HAS BEEN INSTALLED, ALL-WEATHER ACCESS AREA 1 TO BE CONSTRUCTED. REFER TYPICAL CROSS SECTION OF ALL-WEATHER ACCESS TRACK.
4. GEOTEXTILE CLOTH TO BE LAID OVER EXISTING GROUND WHICH WILL BE COVERED BY 300mm LAYER OF AGGREGATE. HIGH-STRENGTH GEOGRID TO BE PLACED FOLLOWED BY 1m (APPROX.) OF AGGREGATE.
5. ONCE ALL-WEATHER ACCESS AREA 1 IS COMPLETED, STAGING PILING RIGS WILL RETURN AND COMMENCE INSTALLATION OF STAGING UNIT 2. STAGING UNIT TO BE CONSTRUCTED IN ACCORDANCE WITH TEMPORARY BRIDGE STAGING CONSTRUCTION METHODOLOGY.
6. UPON COMPLETION OF STAGING UNIT 2, ALL-WEATHER ACCESS AREA 2 WILL BE CONSTRUCTED. FOLLOW SAME METHODOLOGY AS PER CONSTRUCTION OF ALL-WEATHER ACCESS AREA 1.
7. METHODOLOGY TO BE REPEATED FOR STAGING UNIT 3 AND ALL-WEATHER ACCESS AREA 3.

ECOLOGICAL SENSITIVE AREA NOTES

1. PRIOR TO WORKS COMMENCING AREAS OF NATIVE VEGETATION AND WETLANDS ARE TO BE FENCED SO EXTENT OF VEGETATION CLEARANCE WILL BE CLEARLY AND PHYSICALLY DELINEATED.
2. NO CONSTRUCTION MATERIALS OR WASTE TO BE DEPOSITED INTO VEGETATION OUTSIDE OF FENCING.
3. PRIOR TO VEGETATION CLEARANCE APPROVAL MUST BE OBTAINED FROM THE PROJECT ECOLOGIST THAT NATIVE FAUNA AND FLORA RELOCATIONS HAVE BEEN COMPLETED.

   HOLD POINT
4. VEGETATION CLEARANCE CAN ONLY BE UNDERTAKEN BETWEEN 1 OCTOBER TO 31 MARCH.

Figure 5-7 Construction access for BR03

At the end of the bridge construction process, the temporary access track will be repurposed into the wetland experience area walking track which will include replacing construction staging with a smaller steel and timber boardwalk.

Temporary staging will be the same as that described for BR02. However, it will be installed at a much lower height.

Previous geotechnical investigations in the vicinity of BR03 encountered an artesian aquifer at one borehole location. Further work is being undertaken during the detailed design to further investigate the presence of an artesian aquifer and define the condition of this feature. This work will include further assessment of the seepage regime in the area and the location of the aquiclude. There is the potential that the bridge and temporary staging piles may pass through the aquiclude and therefore, removal of the temporary pile may be problematic. Therefore, a contingency has been allowed for to cut the temporary piles off several meters below the ground surface and above the top of the aquiclude and leave the lower portion of the pile in the ground to ensure that the aquiclude remains sealed.

The construction programme for BR03 is approximately 26 months, including the temporary access, staging and MSE wall works. The indicative construction sequence is set out in Figure 5-8 as follows:

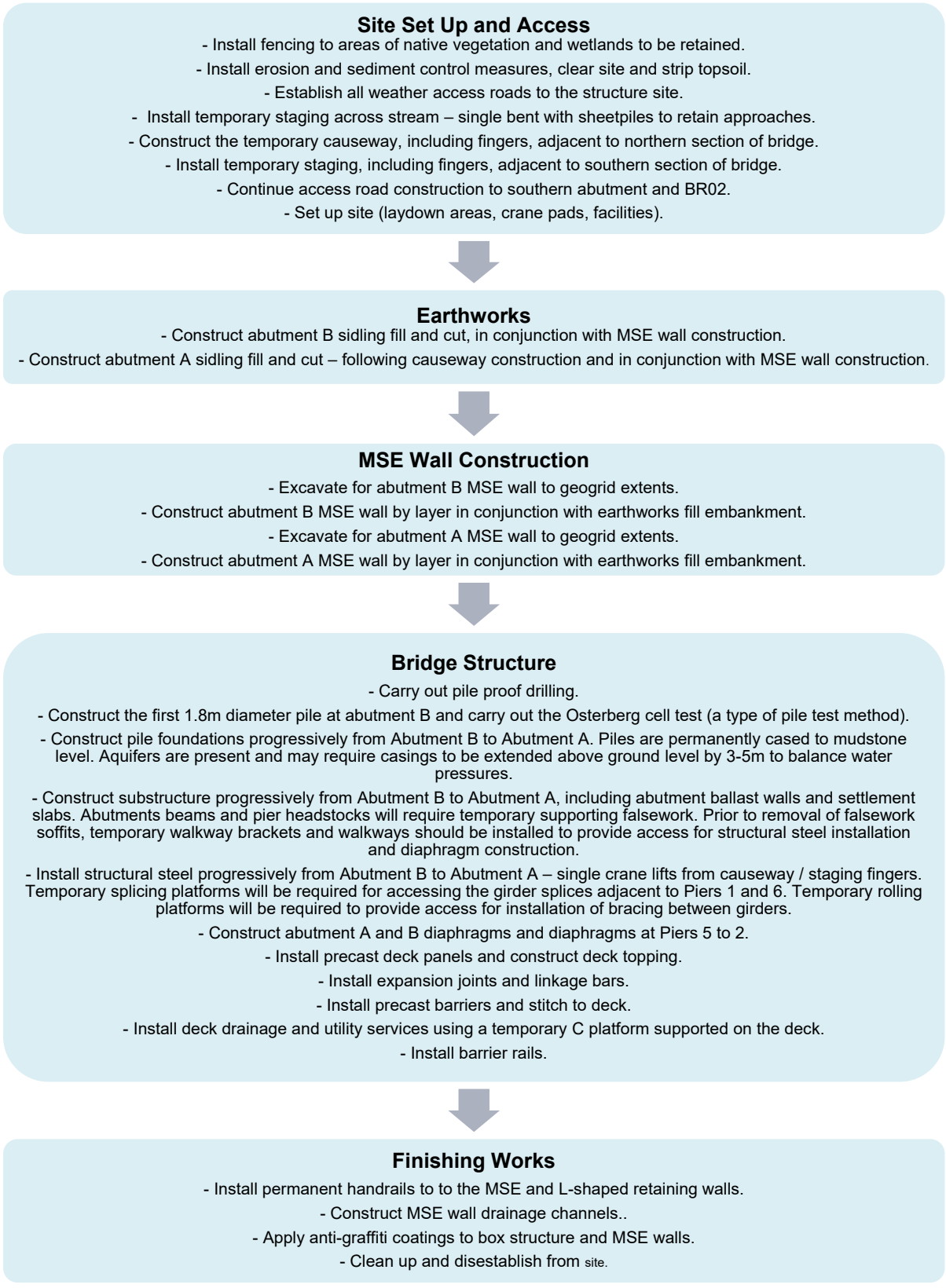


Figure 5-8 Construction Methodology for BR03

D

Appendix D – Applicable Legislation, Statements and Plans

Legislation	Description	Requirement	Regulator	Link
Resource Management Act 1991	To promote the sustainable management of natural and physical resources. The RMA provides the local and regional authorities with the necessary powers to formulate plans and set rules and standards for a multitude of activities.	Every person has a duty to avoid, remedy, or mitigate any adverse effect on the environment arising from an activity carried on or on behalf of that person, whether or not the activity is in accordance with the rules in a plan, a resource consent, a designation section 10, section 10A, or section 20A.	Ministry for the Environment (and local authorities)	Link
Climate Change Response Act 2002	To provide a framework by which New Zealand can develop and implement clear climate change policies, meet its international obligations under the Convention and the Protocol, provide for the implementation, operation and administration of a greenhouse gas emissions trading scheme and provide for the imposition operation and administration of a levy on greenhouse gases contained in motor vehicles or another levy to support and encourage global efforts to reduce the emission of gases.	Section 70A states that a regional council must not have regard to the effects of the discharge into air of greenhouses on climate change, except to the extent that the use and development of renewable energy enables a reduction in the discharge into air of greenhouse gases, either— (a) in absolute terms; or (b) relative to the use and development of non-renewable energy.	Ministry for the Environment (and local authorities)	Link
NES for Assessing and Managing Contaminants in Soil to Protect Human Health 2012	The NES for Assessing and Managing Contaminants in Soil to Protect Human Health A) provides a nationally consistent set of planning controls and soil contaminant values; B) ensures that land affected by contaminants in soil is appropriately identified and assessed before it is developed; and C) if necessary the land is remediated, or the contaminants contained to make the land safe for human use.	For roading activities, any activity that disturbs soil over 25m3 in volume at a HAIL site requires consent under this NES.	District Council	Link
National Policy Statement for Freshwater Management 2014	The National Policy Statement for Freshwater Management supports improved freshwater management in New Zealand.	Under this policy, regional councils/unitary authorities must establish objectives and set limits for fresh water in their regional plans. Until Council have developed these, works impacting waterways, water	Manawatū-Whanganui Regional Council	Link

Legislation	Description	Requirement	Regulator	Link
		discharges, diversions and takes must be undertaken in accordance with this policy statement.		
National Policy Statement on Electricity Transmission 2008	The National Policy Statement on Electricity Transmission recognises the national significance of the electricity transmission network whilst managing the adverse effects of the network and managing the adverse effects of other activities on the network.	Transpower have been consulted as part of the proposal.	Manawatū-Whanganui Regional Council	Link
NES for Air Quality 2004	The NES for Air quality seeks to provide a guaranteed minimum level of health for all New Zealanders	The proposal does not require any consents pursuant to the NES Air Quality as the operational pollutant concentrations will be below the relevant standards. However, the NES Air Quality has helped to inform the requirements relating to construction and operational air quality set out in the consent conditions and relevant management plans.	Manawatū-Whanganui Regional Council	Link
Horizons One Plan 2014	The Horizons One Plan has been developed under the Resource Management Act 1991, and is intended to provide direction regarding the use, development and protection of natural and physical resources in the region, including use of and discharges to, Water, River and Lake Beds, Land and Soil, Air, and Coastal Resources.	Activities carried out under this contract must comply with the designation and consent conditions obtained and the rules defined within the One Plan.	Manawatū-Whanganui Regional Council	Link
Palmerston North District Plan	The Palmerston North City Council District Plan has been developed under the Resource Management Act 1991 (RMA). The purpose of the District Plan is to promote the sustainable management of natural and physical resources, as defined by the RMA, in the Palmerston North district.	Activities carried out under this contract must comply with the designation and consent conditions obtained and the rules defined within the district plan. Where they do no, consent will be obtained prior to works commencing	Palmerston North City Council	Link
Manawatū District Plan	The Manawatū District Plan has been developed under the Resource Management Act 1991 (RMA). The purpose of the District Plan is to promote the sustainable management of natural and physical resources, as defined by the RMA, in the Manawatū district.	Activities carried out under this contract must comply with the designation and consent conditions obtained and the rules defined within the district plan. Where they do not, consent will be obtained prior to works commencing	Manawatū District Council	Link
Tararua District Plan	The Tararua District Plan has been developed under the Resource Management Act 1991 (RMA). The purpose of the District Plan is to promote the sustainable management of natural and physical resources, as defined by the RMA, in the Tararua district.	Activities carried out under this contract must comply with the designation and consent conditions obtained and the rules defined within the district plan. Where they do no, consent will be obtained prior to works commencing	Tararua District Council	Link
Rangitāne o Manawatū Claims Settlement Act 2016	To recognise the particular cultural, spiritual, historical and traditional association of the Rangitāne o Manawatū through recording acknowledgments and apology given by	Activities carried out under this contract will recognise and comply with the Act.	Office of Treaty Settlements	Link

Legislation	Description	Requirement	Regulator	Link
	the Crown and to give effect to certain provisions of the deed of settlement to settle the historical claims.			
Heritage New Zealand Pouhere Taonga Act 2014	The purpose of this Act is to promote the identification, protection, preservation and conservation of the historical and cultural heritage of New Zealand.	Section 42 of the Act directs that an authority is required from Heritage New Zealand Pouhere Taonga if there is 'reasonable cause' to suspect an archaeological site may be modified, damaged or destroyed in the course of any activity.	Heritage New Zealand Pouhere Taonga	Link
Biosecurity Act 1993	The purpose of the Biosecurity Act 1993 is to enable New Zealand to exclude, eradicate or effectively manage pests and unwanted organisms already in the country. The Biosecurity Act requires regional councils and unitary authorities to formulate a regional pest management strategy, list plant and animal species and state objectives, policies and rules with regard to pests, their status and required/anticipated control.	Pest management activities must comply with Local Authority pest management policies and rules.	Ministry for Primary Industries (and Local Authorities)	Link
Freshwater Fisheries Regulations 1996	The Freshwater Fisheries Regulations 1983 at Clause 42 requires that a culvert or ford in any natural river, stream, or water shall be constructed and maintained to allow for the free passage of fish unless a written exemption has been given by the Director-General of Conservation.	These aspects are controlled through the RMA Plans and/or through resource consent conditions as there is no separate consenting process under the Freshwater Fisheries Regulations, with the exception of written exemptions to not comply with the standards of the Regulations.	Department of Conservation	Link
Hazardous Substances and New Organisms Act 1996	The purpose of the Hazardous Substances and New Organisms (HSNO) Act 1996 is to protect the environment, and the health and safety of communities, by preventing or managing the adverse effects of hazardous substances and new organisms.	Activities which require hazardous substances must be managed in compliance with the controls identified by the Act.	Environmental Protection Authority	Link
Wildlife Act 1953	The Wildlife Act deals with the protection and control of wild animals and birds and the management of game. Most species of wildlife (including mammals, birds, reptiles and amphibians), native or introduced, are absolutely protected under the Act.	The Project will likely require an authorisation, given by the Director-General of Conservation under section 53 of the Wildlife Act, in relation to the disturbance of any protected wildlife. This will be obtained	Department of Conservation	Link
Reserves Act 1977	The Reserves Act was established to acquire, preserve and manage areas for their conservation values or public recreational and educational values.	The Ashhurst Domain, an area subject to the Act, is a potential location for ecological offset planting undertaken as part of the Project.	Palmerston North City Council, Tararua District Council and Manawatū District Council	Link
QEII National trust Act 1977	The Act sets out the functions and powers of the Trust, including in respect of land that is subject to an "open space covenant" (often called a "QEII covenant"), as provided for under the Act.	The Project area includes two areas of QEII covenant land, and the Transport Agency is working with the QEII Trust in respect of those areas	QEII Trust	Link

E

Appendix E – Proposed Designation Conditions Schedule – 15 October 2019 Version

Condition		How compliance will be demonstrated	Personnel overseeing compliance	Project phase to which Condition applies
General and Administration				
1.	**General** a) Except as modified by the conditions below, and subject to detailed design and accompanying outline plan(s), the Project must be undertaken in general accordance with the following information provided in 'Te Ahu a Turanga; Manawatū Tararua Highway Project, Notices of Requirement for Designations', dated 31 October 2018: i) Volume 2: Assessment of Effects on the Environment and Supporting Material Parts A to G; ii) Volume 2: Part J, Appendix Three – Preliminary Design Philosophy Report; iii) Volume 2: Part J, Appendix Four – Bridge and Retaining Wall Design Philosophy Report; b) In addition to the matters set out in clause (a), the Project must be undertaken in general accordance with: i) The Cultural and Environmental Design Framework; and ii) The NZTA response (dated 15 January 2019) to the Councils' section 92 request for further information; and iii) the information in respect of the Northern Alignment as follows: A) Land Requirement Plans TAT-2-DG-E-0100-A to TAT-2-DG-E-0108-A dated 14 October 2019; B) Designation Plans TAT-2-DG-E-0110-A to TAT-2-DG-E-0117-A dated 14 October 2019; C) supporting technical addenda attached as Exhibits C to K to the 'Affirmation of Lonnie William D'Wayne Dalzell in Support of Modification to Notice of Requirement' dated 16 October 2019. c) Where there is inconsistency between the documents listed above and the requirements of these conditions, these conditions prevail.	▪ Pre-construction design will be prepared in general accordance with the clauses of Condition 1. ▪ Design variations which differ from the documentation and drawings which supported the NOR process will be subjected to an appropriate 'in general accordance' style assessment.	Damien McGahan	All
2.	**Compliance with outline plan(s) and management plan(s)** a) The Project must be undertaken in accordance with any: i) Approved Outline Plan(s); and ii) Management plan(s) required by Conditions 11, 14, 17, 19, 20, 21, 22, 23, 24, 28, 29, 30, 34, PN2, PN3, T1, T2 and T3.	-	-	-
3.	**Ecological Management Plan certification process**	-	-	-

4.	**Amendments to certified Ecological Management Plan**	-	-	-
5.	**Post-construction review of designation width** a) As soon as practicable following completion of construction of the Project, the Requiring Authority must: i) Review the width of the area designated for the Project; ii) Identify any areas of designated land that are no longer necessary for the on-going operation or maintenance of the State Highway; or for on-going mitigation, offsetting, or compensation measures required to address adverse effects of the Project; and iii) Give notice to the Council(s) in accordance with section 182 of the RMA that those parts of the designation identified in (ii) above are no longer wanted.	▪ Prior to completion of construction, a Property Strategy will be developed which will set out the land requirements for the designation and identify land that the designation can be removed. ▪ Notice is given to the Council(s) in accordance with section 182 to remove any redundant areas of designation.	Damien McGahan	Operation
6.	**[This condition is intentionally left blank]**	-	-	-
7.	**Lapse period**	-	-	-
8.	**Outline plan(s) (enabling works)** a) An outline plan(s) must be prepared and submitted to the relevant Council in accordance with section 176A of the RMA for enabling works that are not otherwise a permitted activity pursuant to the relevant District Plan (unless the requirement is waived by the Council). b) In addition to the matters required by section 176A(3) of the RMA, the outline plan(s) must, to the extent that those matters are relevant to enabling works, demonstrate how the following are achieved: i) The matters in Condition 9(e) and 24(a); ii) Where relevant, compliance with the following conditions: A) condition PN1: Outline plan – Parahaki Island; B) condition M1: Outline plan – Tararua High Pressure Gas Transmission Pipeline; C) condition M2: Outline plan – Palmerston North to Gisborne Rail Corridor; D) condition T4: Outline plan – QEII National Trust open space covenants. c) The outline plan(s) (enabling works) is not required to include: i) Details of reinstatement of any non-permanent works if that matter will be or is addressed in any Outline Plan(s) (construction works); and ii) The management plans required by Conditions 11, 14, 17, 19, 20, 21, 22, 23, 24, 28, 29, 30, 34, PN2, PN3, T1, T2 and T3.	▪ Outline plans will be submitted for enabling works where the designation is confirmed and beyond legal challenge. ▪ Where the designation remains under legal challenge resource consents will be sought. These outline plans will cover the detail required under Condition 8B.	Damien McGahan	Pre-construction
9.	**Outline plan(s) (construction works)** a) An outline plan(s) must be prepared and submitted to the relevant Council in accordance with section 176A of the RMA.	▪ Eight outline plans are proposed to be submitted in stages to enable the efficient construction of the Project. Where	Various	Pre-construction

	b) The outline plan(s) may be submitted for the entire Project or for one or more stages, aspects, sections or locations of works. c) The following must be included in each outline plan(s) as relevant to the particular design or construction matters being addressed: i) A Communications Management Plan (Condition 11); ii) A Construction Environmental Management Plan (Condition 14); iii) A Landscape Management Plan (Condition 17); iv) An Ecological Management Plan (Condition 24) which must include: A) a Planting Establishment Management Plan (Condition 19); B) a Lizard Management Plan (Condition 20); C) a Bat Management Plan (Condition 21); D) an Avifauna Management Plan (Condition 22); E) a Terrestrial Invertebrates Management Plan (Condition 23); v) A Construction Noise and Vibration Management Plan (Condition 28); vi) A Construction Traffic Management Plan (Condition 29); vii) A Tangata Whenua Values Monitoring and Management Plan (Condition 30); viii) A Network Integration Plan (Condition 34); ix) A Western Car Park Construction Management Plan (Condition PN2); x) A Western Car Park Reinstatement Management Plan (Condition PN3); xi) A Te Āpiti Wind Farm Management Plan (Condition T1); xii) A National Grid Management Plan (Condition T2); xiii) A Ballantrae Research Station and Fertiliser Trial Management Plan (Condition T3); xiv) Details of reinstatement and remediation works, including temporary and enabling works not covered by any other management plan or condition; xv) The location and design of the shared path (Condition 36); xvi) A Cultural and Environmental Design Framework design review completed in accordance with Condition 16. d) The documents and plans referred to in clause (c) above may be amended to provide updated information or reflect changes in design or construction methods without the need for a further outline plan, or the need for further certification under condition 4 where the proposed amendment is provided in writing to the Council(s) at least 10 working days prior to the related works being undertaken and: i) The amendment is in general accordance with the outcome described in the original documents or plans (referred to in clause (c)) and previously included in an outline plan(s) or the purpose of the original plan and, ii) in the case of the Ecological Management Plan:	relevant, the plans will be supported by the plans required under clause c). ▪ The CEDF will be amended to reflect outcomes from discussions with Project Partners or changes to the design. A Design Philosophy Report Cultural and Environmental Design has been prepared as an internal facing document in general accordance with the CEDF, which will be submitted at a later date. ▪ The extent of the Preliminary Conceptual Design within the QEII open space covenant is smaller than the NOR design and well within the limits defined in e)(i).		

	A) the proposed amendment to the Ecological Management Plan has no, or a *de minimis* adverse effect on the environment, or is a change that results in an improved environmental outcome; and B) within 5 working days of receiving the proposed amendment to the Ecological Management Plan, the Council(s) has not advised in writing that the amendment must be made under Condition 4 on the basis that the Council(s) considers the amendment is not in general accordance with relevant outcome or purpose in the original Ecological Management Plan, and/or that the amendment would potentially have a greater than de minimis adverse effect; or iii) The amendment is required to give effect to an amendment to the Cultural and Environmental Design Framework, other than where Conditions 16(g) and 16(h) applies. e) In addition to the matters required by section 176A(3) of the RMA, the outline plan(s) must demonstrate how the following are achieved: i) That the maximum length of the following streams (shown on Drawing C-10) permanently disturbed by diversion or other physical modifications is minimised as far as practicable and does not exceed: A) QEII Trust west (stem 7A): 350m in total; B) QEII Trust east (stems 6A, 6B and 6C): 100m in total. ii) That the area of wetlands, indigenous vegetation or habitat removed does not exceed the maximum areas of vegetation or habitat able to be removed provided for in Table 1: Vegetation Removal in Condition 24(a)(i)); iii) That in addition to the specific matters addressed in Conditions 34, M1, M2, T1 and T2, the scope, location and timing of works to relocate network utilities and any measures necessary to provide for the identification of, safety and protection of network utilities (in consultation with the network utility operator/Council); iv) That except where Meridian provides written consent, the Project must not result in the removal of more than two turbines from the Te Āpiti wind farm; v) The maintenance of permanent access to existing and relocated network utilities and Te Āpiti wind farm turbines (where the turbines are retained), including reasonable and emergency access during construction of the Project; vi) That the design of the new bridge over the Manawatū River includes a shared pathway required by Condition 36 that also connects to the Manawatū Gorge Scenic Reserve (on the northern bank of the Manawatū River), subject to land availability; vii) Where relevant, compliance with the following conditions: A) Condition PN1: Outline plan – Parahaki Island;			

	B) Condition M1: Outline plan – Tararua High Pressure Gas Transmission Pipeline; C) Condition M2: Outline plan – Palmerston North to Gisborne Rail Corridor; D) Condition T4: Outline plan – QEII National Trust open space covenants.			
10.	**Community Liaison Person**	-	-	-
11.	**Communications Management Plan** a) As soon as practicable, and prior to the commencement of construction work activities, the Requiring Authority must prepare a Communications Management Plan that sets out procedures detailing how the public, stakeholders and residents will be communicated with throughout the enabling or construction work activities. b) The objective of the Communications Management Plan shall be to ensure that potentially affected parties are communicated with about ongoing design and enabling or construction management activities. c) As a minimum, the Communications Management Plan must include: i) Details of the Community Liaison Person (Condition 10), including the ways in which their contact details will be found, such as on the Project website and at site access points. ii) A list of stakeholders, organisations, businesses and residents who will be communicated with. iii) Topics of communication, including but not limited to: A) proposed hours of enabling or construction work activities where these are outside of normal working hours or on weekends or public holidays, including night-time heavy vehicle movements; B) proposed routes for enabling or construction vehicles, including the total number of vehicles, proportion of heavy vehicles and the times of day these routes will be used; C) methods to deal with concerns raised; D) methods to provide early notification to businesses of enabling or construction work activities, particularly any such activities that will or may impact on Saddle Road (and use of Saddle Road for traffic); E) methods to communicate on any temporary traffic management measures, including disruption of, or changes to, pedestrian and cycling routes and the reinstatement of those routes disrupted by closure of State Highway 3 through Manawatū Gorge (such as the Saddle Road/Pahīatua cycleway route); F) methods to communicate on any disruption of, or changes to, access to the Manawatū Gorge Scenic Reserve walkways (and/or the Western Car Park during enabling or construction works);	▪ A Communications Plan will be developed to identify stakeholders, communication channels, key issues to be considered and addressed, and the management of complaints. The plan will be finalised with the community liaison group which will be established early to enable their input into the communication, design and other plans referenced in the conditions.	Darren Utting	Pre-construction

	G) general conceptual design matters including but not limited to landscaping, rest areas, viewing points, and the shared path; H) progress of any enabling or construction works in comparison to key project milestones and completion dates; and I) details of communication activities proposed including: 1. details of a Project website for providing information to the public, publication of newsletters (or similar), and proposed newsletter delivery areas; 2. information days, open days or other mechanisms to facilitate community engagement; 3. newspaper advertising; and 4. notification and consultation with road user groups, business owners and operators and individual property owners and occupiers with premises/dwellings within 100 metres of active enabling or construction works activities, and for all businesses, pre-schools and schools in Woodville and Ashhurst.			
13.	**Complaints management**	-	-	-
14.	**Construction Environmental Management Plan**	▪ Preparation of a Construction Environmental Management Plan to support all outline plans. The CEMP forms part of the Project's "living document" suite and shall be updated as the project design progresses, and construction details evolve. This will include the criteria specified in Condition 14.	Damien McGahan	Pre-construction
15.	**Erosion and sediment control measures**	-	-	-
Landscape, Visual Amenity and Natural Character				
16.	**Cultural and Environmental Design Framework** a) The detailed design of the Project must achieve the corridor design principles and emerging design outcomes contained in the Cultural and Environmental Design Framework. b) Any management plan required by conditions of this designation, or outline plan prepared and submitted in accordance with section 176A of the RMA, must demonstrate compliance with (a) through the completion of the 'design review template' (attached as Appendix B to the Cultural and Environmental Design Framework).	▪ A Cultural and Environmental Design Philosophy Report (DPR) has been prepared to guide the developed and detailed design of the Project and is part of the evolution of a 'living document' framework. The DPR has been preceded by the updated preliminary CEDF (March 2019) and it will be followed by the CEDF Outline Plan Version as part of the suite of supporting documentation that will be	Bruce McKenzie	Pre-construction

	c) Subject to (d) below, the Cultural and Environmental Design Framework may be amended to take into account the outcomes of consultation with Project Iwi Partners, the Department of Conservation, the Councils, the Manawatu-Whanganui Regional Council, the QEII National Trust, the Te Āpiti Manawatu Gorge Governance Group, the Community Liaison Group, affected network utility providers, Meridian, and AgResearch. d) Sections 1.5 'Iwi Crown Partnership and Treaty of Waitangi Settlements'; 2.1 'Tangata Whenua Principles'; Appendix A.2 'Cultural Values and Narratives'; and Appendix A.3 'Sites of Significance to Tangata Whenua' of the Cultural and Environmental Design Framework may be amended, including to incorporate outcomes of cultural management and monitoring activities undertaken in accordance with Tangata Whenua Values Monitoring and Management Plan required by Condition 30, if the amendment: i) is an agreed outcome of consultation with Project Iwi Partners; and ii) does not delete content of the Cultural and Environmental Design Framework. e) In the event that agreement to amend the Cultural and Environmental Design Framework as provided in (d)(i) above is not obtained with the Project Iwi Partner(s) then the April 2019 version of the Cultural and Environmental Design Framework applies. f) If the Cultural and Environmental Design Framework is amended in accordance with (c) or (d) above, a copy of the amended Cultural and Environmental Design Framework must be provided to the Responsible Officer of each Council. g) If an amendment to the Cultural and Environmental Design Framework requires a consequential amendment to a certified Ecological Management Plan, then an amended Ecological Management Plan must either: i) be submitted for certification in accordance with Condition 4; or ii) be made in accordance with the process set out in Condition 9(d). h) If an amendment to the Cultural and Environmental Design Framework would materially affect the content of an outline plan, then an amended outline plan must be submitted to the relevant Council in accordance with Condition 9.	submitted with the relevant Outline Plans, in accordance with condition 16. ▪ The CEDF Outline Plan version will also include an addendum of Design Review Templates from each design discipline setting out how cultural and environmental design values have been reflected in the project outcomes. ▪ The design review template will be completed and submitted with any outline plan(s).		
17.	**Landscape Management Plan** a) The objective of the Landscape Management Plan is to address the potential adverse effects of the Project on landscape, visual amenity and natural character values by describing the integration of the Project's permanent works into the surrounding landscape and establishing the requirements for landscape mitigation works and to ensure that planting is completed as soon as is reasonably practicable following the completion of each stage of, or discrete location of, construction works.	▪ A Landscape Management Plan will be prepared in accordance with Condition 17. Refer Section 9 of the Cultural and Environmental Preliminary Conceptual Design Report (March 2019) for the Landscape Concept Master Plan.	Bruce McKenzie	Pre-construction

	b) The Landscape Management Plan forms part of the Construction Environmental Management Plan required by Condition 14 and must: i) be prepared by an independent, suitably qualified and experienced person; ii) have particular regard to the outcomes of consultation with landowners within the Designation, the Project Iwi Partners the Department of Conservation, the Council(s), the Manawatū-Whanganui Regional Council, the QEII National Trust, the Te Āpiti Manawatū Gorge Governance Group, the Community Liaison Group, Meridian, and Manawatū River Source to Sea; iii) As a minimum, the Landscape Management Plan must: A) describe how permanent works, such as earthworks areas, are integrated into the surrounding landscape and topography, including (but not limited to) the restoration of areas used for temporary work and enabling or construction works yards and the opportunity for the permanent exposure of valuable geological profiles to provide geosites; B) describe and map indigenous vegetation that is to be retained (consistent with vegetation mapping undertaken as part of the Planting Establishment Management Plan required by Condition 19(d)(iii) and any proposed new landscape and visual amenity plantings; C) require any proposed new landscape or visual amenity planting to be undertaken as soon as is reasonably practicable following the completion of works and in accordance with the Planting Establishment Management Plan required by Condition 19; D) describe proposed planting at 75 Hope Road, developed in consultation with the owners of 75 Hope Road, to screen views of the new road; E) demonstrate the integration of: 1. works and planting required by the Landscape Management Plan with any replacement, offset or compensation planting and measures required by Conditions 19 and 24; 2. the planting of stream riparian and wetland margins to restore natural character values.			
18.	[*This condition is intentionally left blank*]	-	-	-
19.	**Planting Establishment Management Plan**	-	-	-
20.	**Lizard Management Plan**	-	-	-
21.	**Bat Management Plan**	-	-	-
22.	**Avifauna Management Plan**	-	-	-
23.	**Terrestrial Invertebrate Management Plan**	-	-	-

<table>
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<td>24.</td>
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Ecology, Ecological Management Plan and offset and/or compensation measures
a) The following standards apply in respect of terrestrial ecology (and natural character in respect of clause (v)):
i) The area of wetlands, indigenous vegetation or habitats removed must not exceed the maximum areas provided for in Table 1: Vegetation Removal, except that the maximum area of exotic dominated wetlands able to be removed must be updated to take into account any additional exotic dominated wetlands identified in pre-construction surveys undertaken by the Requiring Authority;
Table 1: Vegetation Removal
<table>
<tr><th>Ecosystem type</th><th>Maximum area of vegetation or habitat able to be removed (ha)</th></tr>
<tr><td>Secondary broadleaved forests with old-growth signatures</td><td>2.39</td></tr>
<tr><td>Old-growth treelands</td><td>0.26</td></tr>
<tr><td>Kānuka forests (CH4000 – 4400)</td><td>1.00</td></tr>
<tr><td>Kānuka forests (elsewhere)</td><td>0.59</td></tr>
<tr><td>Advanced secondary broadleaved forests (CH5600 -5800)</td><td>0.09</td></tr>
<tr><td>Advanced secondary broadleaved forests (elsewhere)</td><td>0.41</td></tr>
<tr><td>Secondary broadleaved forests and scrublands (CH6100 – 6400)</td><td>0.03</td></tr>
<tr><td>Secondary broadleaved forests and scrublands (elsewhere)</td><td>14.12</td></tr>
<tr><td>Mānuka and kānuka shrublands (CH6100 – 6400)</td><td>0</td></tr>
<tr><td>Mānuka and kānuka shrublands (elsewhere)</td><td>3.63</td></tr>
<tr><td>Divaricating shrublands</td><td>0.33</td></tr>
<tr><td>Old-growth forests (alluvial)</td><td>0.15</td></tr>
<tr><td>Old-growth forests (hill country)</td><td>0.86</td></tr>
<tr><td>Raupō dominated seepage wetlands (high value)</td><td>0.13</td></tr>
<tr><td>Indigenous-dominated seepage wetlands (moderate value)</td><td>1.12</td></tr>
<tr><td>Exotic-dominated wetlands (low value)</td><td>2.74</td></tr>
</table>
ii) Swamp maire must be planted at the following rates:
</td>
<td>

An Ecological Management Plan has been prepared as part of the regional consent documentation (refer to Volume VII: Management Plans) and will be treated as a ‘living document’ to be updated and reviewed as the Project progresses.
The EMP has been prepared to identify how the Project will avoid and minimise potential adverse effects on the ecological and biodiversity values within the Project area and its surrounds, in accordance with condition 24.

</td>
<td>Josh Markham</td>
<td>Pre-construction</td>
</tr>
</table>

	A) 100 swamp maire trees for any existing swamp maire tree affected by more than 10% of live growth pruning as determined by an independent, suitably qualified and experienced arborist; B) 200 swamp maire trees for any existing swamp maire tree that dies as a result of enabling or construction works activities, as determined by an independent, suitably qualified and experienced arborist; iii) Where any ramarama greater than 15 centimetres tall is removed as a result of enabling or construction works activities, replacement planting of ramarama must be undertaken at a rate of 1:100; iv) Planting must be provided in order to mitigate edge effects associated with indigenous vegetation removal; v) That the maximum length of the following streams (shown on Drawing C-10) permanently disturbed by diversion or other physical modifications is minimised as far as practicable and does not exceed: A) QEII Trust west (stem 7A): 350m in total; B) QEII Trust east (stems 6A, 6B and 6C): 100m in total; vi) Pre-construction surveys must be undertaken in the relevant habitats to detect the presence of: A) lizards; B) At Risk or Threatened terrestrial invertebrates; C) cryptic bird species; D) nesting dotterels, pipit and whiteheads; E) indigenous nesting bird species that are protected by the Wildlife Act 1953 and are in old-growth forest or secondary broadleaved forest that is to be cleared between the months of September and December; The pre-construction surveys required by C) to E) above must be undertaken within 2 working days before the relevant proposed habitat clearance works; vii) Any bat roosting site that is discovered must be retained when active; viii) Lizards discovered, including through pre-construction surveys of lizard habitats, must be salvaged and released to an identified release site; ix) Active nesting sites of bird species identified by the pre-construction surveys required by clause (a)(vi) above, or active nesting sites of the species listed in clause (a)(vi)(C) and (D) that are identified during construction works, must not be disturbed and must be protected by the establishment of an exclusion area within which works cannot be undertaken; x) Within the areas subject to the QEII Trust open space covenants (shown on Plan C-06 dated October 2018) that are within the Designation: A) a pre-construction baseline survey of pest plants must be undertaken; and			

	B) all new pest plants must be controlled both during construction and for five years following the completion of construction works to the same level or better than found in the pre-construction baseline survey; xi) Where more than minor adverse effects on indigenous biological diversity are not reasonably avoided, remedied or mitigated, they are offset and, if they cannot be offset, they are compensated to result in a net indigenous biological diversity gain. The offset and compensation measures must be described in the Ecological Management Plan in accordance with clause (d) and (e) including in respect of effects of enabling works on indigenous biological diversity and wetlands. b) The Requiring Authority must confirm to the Responsible Officer(s) prior to the commencement of construction that it has secured the legal agreements and/or other authorisations necessary to carry out, continue and maintain, as required, all the measures provided for in the Ecological Management Plan. c) The Objective of the Ecological Management Plan is to achieve the standards set out in clause (a) and address the potential adverse effects of the Project on ecological and biodiversity values. d) The Ecological Management Plan must be certified in accordance with Condition 3 and form part of the Construction Environmental Management Plan required by Condition 14. It must: i) Be prepared by an independent, suitably qualified and experienced ecologist(s); ii) As a minimum: A) summarise the terrestrial ecology and biodiversity values and effects of the Project; B) take into account the outcomes of any consultation with the Project Iwi Partners, the Department of Conservation, the Te Āpiti Manawatū Gorge Governance Group and any other party having a direct interest in the land subject to any replacement, offset or compensation planting required; C) include the Planting Establishment, Bat, Lizard, Avifauna, and Terrestrial Invertebrate Management Plans required by Conditions 19, 20, 21, 22 and 23; D) detail how vegetation to be removed will be identified on site; E) set out site staff induction procedures in respect of ecological requirements, including measures to prevent the introduction of pest plants and pest animals; F) consider opportunities for: 1. the reuse of natural materials and felled trees by the Project Iwi Partners; and			

	2. community participation in planting; G) provide for the salvage and transfer of soils, coarse woody material or debris and leaf litter for use in areas of replacement and retirement planting; H) confirm the location of any areas to be retired from grazing. e) The Requiring Authority must, in consultation with the Project Iwi Partners, the QEII National Trust (where relevant to the management of existing or proposed open space covenants) and the Department of Conservation describe in the Ecological Management Plan the extent of any offsetting or compensation necessary to achieve a net indigenous biological diversity gain (including in respect of residual adverse effects of enabling works) with reference to: i) the direction given by the relevant provisions of Policy 13-4 of the One Plan – Part II; ii) the conditions of any regional resource consents granted for the Project; iii) '*Biodiversity Offsetting under the Resource Management Act: A guidance document*', published by Local Government New Zealand in September 2018; f) Where offsetting or compensation is necessary, and requires measures additional to those required by these conditions, this may include (but not be limited to): i) the retirement of areas (where available) within the areas shown for this purpose in Appendix C to the Statement of Evidence of Dr Forbes dated 8 March 2019, provided additionality can be achieved in those areas; ii) the retirement of additional areas in an alternative location, offset or compensation planting and/or additional pest management measures; iii) funding provided to the Manawatū Gorge Governance Group to undertake activities described in the 'Te Āpiti – Manawatū Gorge Biodiversity Management Plan' dated 8 August 2017 including, but not limited to, items that are consistent with the section 4 of that Plan and the following items listed in section 6.1 of that Plan: A) weed and animal pest survey and planning; B) weed control; C) animal control; D) monitoring and reporting; E) biodiversity enhancement; F) landscape level linkages. iv) the use of restoration planting techniques to: A) improve native species diversity; B) mimic native succession;			

	C) accelerate succession; D) achieve self-sustaining, successional native ecosystems; and/or E) restore ecological linkages, buffers and corridors. g) The required offsetting or compensation activities must be managed, where appropriate, in accordance with the management framework set out in the Ecological Management Plan. h) The Requiring Authority must not submit a finalised Ecological Management Plan for certification under Condition 3, or as part of an Outline Plan under Condition 9, until regional resource consents necessary to provide for the construction of Project have been granted and are beyond challenge (in respect of ecological matters).			
25.	**At risk or threatened flora and fauna discovery protocol**	-	-	-
26.	**Limits and assessment – construction noise**	-	-	-
27.	**Limits and assessment – construction vibration**	-	-	-
28.	**Construction Noise and Vibration Management Plan** a) As soon as practicable, and prior to the commencement of construction works activities, the Requiring Authority must prepare a Construction Noise and Vibration Management Plan. b) The Construction Noise and Vibration Management Plan forms part of the Construction Environmental Management Plan required by Condition 14. c) The objective of the Construction Noise and Vibration Management Plan is to demonstrate how compliance with the criteria in Conditions 26 and 27 will be achieved for the duration of construction of the Project. d) The Construction Noise and Vibration Management Plan must: i) Be prepared by an independent, suitably qualified and experienced person and in general accordance with the requirements of Annex E2 of NZS 6803:1999; ii) Include, as a minimum: A) a description of the likely construction noise and vibration emissions; B) a description of the construction work, anticipated equipment and processes and their scheduled durations; C) a description of noise or vibration suppression devices to be used on equipment or processes; D) the hours of operation, including times and days when activities causing noise and/or vibration would occur; E) the construction noise and vibration criteria for the Project; F) identification of affected houses and other sensitive locations where noise and vibration criteria apply;	▪ A Construction Noise and Vibration Management Plan will be prepared during detailed design to comply with this condition. The properties most likely to experience construction noise effects are located in Woodville and Ashhurst where there would be an increase in construction traffic. This management plan will also specifically address construction noise at the Shannon and Bolton properties.		Pre-construction

	G) methods and frequency for monitoring and reporting on construction noise and vibration; H) procedures for maintaining contact with stakeholders, notifying or proposed construction activities and handling noise and vibration complaints (consistent with the Communications Management Plan and complaints register); I) a description of alternative mitigation strategies where compliance with the criteria in Conditions 26 or 27 may not be achieved; J) procedures, developed in consultation with TPR, to remedy or mitigate any potential adverse effects in instances where the construction vibration criteria set out in Condition 27 might not be complied with in respect of the Mangamaire – Woodville A 110kV National Grid transmission line support structures; K) procedures, developed in consultation with Meridian, to remedy or mitigate any potential adverse effects in instances where the construction vibration criteria set out in Condition 27 might not be complied with in respect of Te Āpiti wind farm turbines; L) construction equipment operator training procedures and expected construction site behaviours; M) contact numbers for key construction staff, staff responsible for noise assessment and the Responsible Officer(s).			
29.	**Construction Traffic Management Plan** a) As soon as practicable, and prior to the commencement of construction works activities, the Requiring Authority must prepare a Construction Traffic Management Plan. b) The objective of the Construction Traffic Management Plan is to minimise adverse effects on property access, traffic safety and efficiency as a result of enabling or construction works activities. The Construction Traffic Management Plan forms part of the Construction Environmental Management Plan required by Condition 14 and must, as a minimum: i) Be prepared by a suitably qualified and experienced person; ii) Take into account the outcomes of any consultation with the Community Liaison Group (Condition 12), the Responsible Officer(s), and any relevant issues arising from the implementation of the Communications Management Plan (Condition 11); iii) Set out the numbers, frequencies, routes and timing of enabling or construction works traffic movements;	▪ A Construction Traffic Management Plan will be prepared to comply with this condition during detailed design. ▪ The Preliminary Conceptual Design details various improvements to access tracks, including left hand turn on the eastern end of Ashhurst Saddle Road Bridge to allow construction traffic onto access track without turning across traffic.		Pre-construction

	iv) Identify site access routes and access points for heavy vehicles in a manner consistent with the NZTA's Code of Practice for Temporary Traffic Management and describe measures to: A) monitor and manage, as necessary, the movements of heavy vehicles on Saddle Road during peak times; B) provide for access to the site to be gained (where possible) from both sides of the Ruahine Ranges; C) minimise, as far as practicable, any adverse effects of the movements of heavy vehicles accessing the site from Hope Road, including by: 1. restricting construction related heavy vehicle movements to between the hours of 0730 and 1800; and 2. consulting with the owners/occupiers of 29 Hope Road and 75 Hope Road to identify any further practicable measures to manage adverse effects on these properties; v) Describe methods to manage local and network wide effects of the construction of individual elements of the Project including, as a minimum, the roundabout connections at Ashhurst and Woodville including temporary traffic management measures; vi) Describe methods to limit the movement of construction related heavy vehicles through Ashhurst at night and peak times, including limiting night-time movements to oversized loads and essential movements (such as concrete trucks for continuous pours); vii) Describe methods to limit the movement of construction related heavy vehicles through Woodville at night, including limiting night-time movements to oversized loads and essential movements (such as concrete trucks for continuous pours); viii) Require all heavy construction vehicles to have effective noise suppression devices for engine brakes; ix) Give consideration to opportunities to reduce adverse effects though: A) use of KRH's infrastructure to deliver construction materials to the Manawatū River bridge site; B) accelerated construction of the Manawatū River bridge and Hope Road bridge so that these bridges may be used to access the site; x) Set out how the current provision for pedestrians and cyclists is maintained; xi) Detail measures to provide on-going vehicle access to private and adjacent properties, including the Te Āpiti wind farm and the Western Car Park, and limit the adverse effects of construction and severance, including by forming any new permanent accesses at the earliest opportunity; and			

	xii) Confirm the management approach to loads on heavy vehicles, including covering loads of fine material and the timely removal of any material deposited or spilled on public roads.			
30.	**Tangata Whenua Values Monitoring and Management Plan** a) A Tangata Whenua Values Monitoring and Management Plan must form part of the Construction Environmental Management Plan (Condition 14). b) The objective of the Tangata Whenua Values Monitoring and Management Plan is to recognise and provide for the tangata whenua values of the area affected by the Project and to develop mechanisms and processes to seek to avoid or minimise potential impacts on those values through the implementation of agreed monitoring and mitigation measures. c) The Tangata Whenua Values Monitoring and Management Plan must be prepared by a person (or persons) endorsed by the Project Iwi Partners and must include (but not be limited to): i) Enabling activities, including site dedications; ii) Cultural protocols and procedures for cultural inductions; iii) A description of specific monitoring activities to be undertaken; iv) Confirmation of the roles and responsibilities of personnel in respect of clauses(i) to (iii); v) Approaches to realising opportunities to reuse natural materials/trees, participation in planting, fish surveys and/or transfer, species monitoring and translocation; vi) Setting out the detailed accidental discovery protocol procedures development under Condition 31; vii) Consideration of potential effects on taonga species, or other species of significance to tangata whenua, including, but not limited to: A) koura; B) tuna; C) kererū; D) parapara (*P. brunoniana*); E) tī kōuka; F) toitoi; G) karaka; H) mataī; I) puku tawai; J) northern rātā; and	▪ This condition will be met chiefly through the partnering approach Advance will have with iwi in the Project. This will see iwi involved at all Project levels from governance, consenting and design to delivery. ▪ A Tangata Whenua Values Monitoring and Management Plan will be prepared and submitted as part of the outline plans. Iwi will be integral to the development and endorsement of the TWVMMP(s). We will also consult with the trustees of Parahaki Island in relation to the adjacent bridge construction effects and acknowledgement of cultural significance through design.	Shad Rolleston	Pre-construction

	viii) Any other matters or measure to avoid or mitigate potential impacts on tangata whenua values, customs and practices.			
31.	**Accidental discovery protocol and archaeological authority** a) Where an area of the Designation is not subject to an archaeological authority (sought under section 44(a) and granted under section 48 of the Heritage New Zealand Pouhere Taonga Act 2014), an accidental discovery protocol must apply to all works in that area. b) The accidental discovery protocol must be prepared in consultation with the Project Iwi Partners and Heritage New Zealand Pouhere Taonga and must include, but not be limited to: i) Details of contractor training regarding the skills necessary to be aware of the possible presence of cultural or archaeological sites or material; ii) General procedures following the accidental discovery of possible archaeological sites, kōiwi tangata, wāhi tapu or wāhi taonga, including the requirement to immediately cease enabling or construction works activities in the vicinity of the discovery and the requirement to notify parties including, but not limited to, Heritage New Zealand Pouhere Taonga; iii) Specific procedures in the event that kōiwi tangata are discovered; iv) Procedures for the custody of taonga (excluding kōiwi tangata) or material found at an archaeological site; v) Activities (including a review of available and relevant archaeological information) that must be undertaken before enabling or construction works activities in the vicinity of the discovery can recommence, including appropriate tikanga, recording, recovery of artefacts and consultation. c) In the event of kōiwi tangata being discovered, work must cease immediately in the vicinity of the remains and the Project Iwi Partners, Heritage New Zealand Pouhere Taonga, New Zealand Police and the relevant Council(s) must be contacted.	▪ In discussions Advance has had with iwi already, we have highlighted the need for agreed accidental discovery protocols for use in areas not subject to an Archaeological Authority.		Pre-construction
32.	**Electrical clearances**	-	-	-
33.	**National Code of Practice for Network Utility Operators' Access to Transport Corridors**	-	-	-
34.	**Network Integration Plan**	-	-	-
35.	**Ashhurst Bridge**	-	-	-
36.	**Provision of shared path(s)**	-	-	-
37.	**New Manawatu River Bridge**	-	-	-
38.	**Recreational Paths Fund**	-	-	-

39.	**Noise bunds**	-	-	-
PN1.	**Outline Plan – Parahaki Island**	-	-	-
PN2.	**Western Car Park Construction Management Plan** a) Prior to any enabling or construction works that affect access to or use of the car park at the western boundary of the Manawatū Gorge Scenic Reserve and/or access to the Manawatū Gorge walking tracks, a Western Car Park Construction Management Plan must be prepared. b) The objective of the Western Car Park Construction Management Plan is to detail how public access will be maintained for the duration of enabling and construction works activities. c) The Western Car Park Construction Management Plan must be prepared in consultation with the landowner, Department of Conservation, Palmerston North City Council, Te Āpiti Manawatū Gorge Governance Group, the Project Iwi Partners, and the Community Liaison Group. d) The Western Car Park Construction Management Plan must include, as a minimum: i) While allowing for construction activities, provision of a temporary car park that is generally of the same standard of surface and parking capacity that the existing car park had at 31 October 2018; ii) Details of how public access between any temporary carpark and the Manawatū Gorge Walking Track will be provided; iii) A Crime Prevention Through Environmental Design Safety Site Assessment; and iv) Details of any changes to or temporary relocation of existing way finding and interpretation signs within and adjacent to the Western Car Park (including signs to existing walking tracks and to any pedestrian access or viewpoints for pedestrians on the new Manawatū River bridge) and any upcoming closure information. e) If a temporary closure to the Western Car Park is required, this must only occur during weekdays and for no more than two consecutive working weeks at a time. The Department of Conservation, the Te Āpiti Manawatū Gorge Governance Group and the Responsible Officer(s) must be made aware of the details of the temporary closure at least 10 working days prior to the closure occurring.	▪ The Cultural and Environmental Design Framework has been designed to incorporate all the matters outlined in PN2 and will be subject to consultation with stakeholders. ▪ A temporary car park is being provided during construction to maintain access to the Manawatū Gorge Scenic Reserve during construction, in a location that is safe for the public to access. Please refer to the Construction Access and Accommodation Works drawings for the location of this car park. ▪ A Western Car Park Construction Management Plan will be prepared and submitted as part of any outline plan relating to the access or use of the car park.	Bruce McKenzie	Pre-construction
PN3.	**Western Car Park Reinstatement Management Plan** a) Within one year of commencing the construction of works in the proximity of the Western Car Park that will directly affect that car park, a Western Car Park Reinstatement Management Plan must be prepared. b) The Western Car Park Reinstatement Management Plan must be prepared in consultation with the landowner, Department of Conservation, Palmerston North	▪ The Cultural and Environmental Preliminary Conceptual Design Report has been designed to incorporate all the matters outlined in PN3 and will be subject to consultation with stakeholders.	Bruce McKenzie	Construction

	City Council, the Te Āpiti Manawatū Gorge Governance Group, the Project Iwi Partners and the Community Liaison Group and be consistent with the design principles and design outcomes in the Cultural and Environmental Design Framework. c) The Western Car Park Reinstatement Management Plan must, as a minimum: i) Provide for at least the same number of car parks as the number that existed at 31 October 2018; ii) Provide for at least the same number of toilet and bike parking facilities that existed at 31 October 2018; iii) Provide for at least the same public access to the Manawatu River that existed at 31 October 2018; iv) Include a Crime Prevention Through Environmental Design (CPTED) Safety Site Assessment; v) Incorporate any decisions regarding the future status of the closed section of State Highway 3 immediately adjacent to the car park that existed at 31 October 2018; vi) Take into account the final masterplan prepared by the Te Āpiti Manawatū Gorge Governance Group; vii) Describe the reinstatement of land used for construction including: A) removal of structures, plant and materials associated with construction (unless otherwise agreed with the landowner); B) replacement or reinstatement of formal parking areas, boundary fences, landscaping and way finding and interpretation signs within and adjacent to the Western Car Park (including signs to existing walking tracks and to any pedestrian access or viewpoints for pedestrians on the new Manawatū River bridge); C) reinstatement of grassed areas to a similar condition as existed prior to construction; and D) replacement of trees and other planting removed as part of construction activities. d) Include details of the consultation undertaken under clause (b) above, including the comments made and any measures taken by the Requiring Authority to respond to these matters.	▪ A Western Car Park Reinstatement Management Plan will be prepared.		
M1.	**Outline Plan – Tararua High Pressure Gas Transmission Pipeline**	-	-	-
M2.	**Outline Plan – Palmerston North to Gisborne Rail Corridor**	-	-	-
T1.	**Te Āpiti Wind Farm Management Plan**	-	-	-
T2.	**National Grid Management Plan**	-	-	-

T3.	**Ballantrae Research Station and Fertiliser Trial Management Plan**	-	-	-
T4.	**Outline Plan – QEII National Trust open space covenants**	-	-	-
40.	**Road surfacing**	-	-	-
41.	**Traffic separation**	-	-	-
42.	**Lot 2 DP 351133 landscaping**	-	-	-
43.	**Post-construction review**	-	-	-
44.	**Operational lighting**	-	-	-
45.	**Written consent under section 176 of the RMA - Te Āpiti Wind Farm**	-	-	-
46.	[*This condition is intentionally left blank*]	-	-	-

F

Appendix F – Relevant Regional and District Plan Rules, Associated Performance Standards and Conditions

Provided in Volume I, and not replicated here for this resource consent application version of the CEMP.

G

Appendix G – Greenroads Requirements

This Project is using the Greenroads Sustainability Rating System Version 2. This appendix details Greenroads requirements that are different, or additional to the Project designation and resource consent requirements. It is essential that these requirements are met to achieve the project's sustainability goals however, that are not consent requirements to be certified by Council.

Applicable Greenroads credits that relate to this Construct Environmental Management Plan, and where they are addressed in the document are listed in Table 5-2. See the Greenroads Management Plan for specific details of all evidence required.

Table 5-2 Greenroads Requirements

Greenroads Credit	Greenroads Requirement	Evidence Required	Relevant Section of the CEMP
PR-04 Social Impact Analysis (Required)	Encourage comprehensive evaluation of the Project's social and community impacts for its whole lifecycle.	1. Collect, document, and disclose all available information about: b. The proposed direct, indirect, and cumulative social impacts and improvements to the Project site expected as a result of the construction works.	Section 2.1, and table 21. *(Remainder of PR-4 elsewhere)*
PR-08 Pollution Prevention (Required)	The prime contractor shall establish, implement, and maintain a formal construction Pollution Prevention Plan (PPP) that applies throughout construction and to all subcontractors, signed by an authorized party responsible for pollution prevention activities. The PPP must be in place and approved by the Owner prior to the start of construction and be available on site.	1. Key pollution prevention personnel, their responsibilities, and their qualifications	*Section of this plan xx,* *Or* *Note alt. document the evidence is located in.*
		2. Schedule of activities for construction operations	
		3. A list of expected pollutants generated by construction operations	
		4. Relevant regulatory compliance information, including minimum effluent and air quality standards	
		5. Identification of buffers and potentially impacted bodies of water	
		6. Procedures used to control pollutants and prevent pollution, including but not limited to effluent from stormwater and snowmelt, non-stormwater discharges (e.g. groundwater, washing water, other fluids from chemicals, etc.), erosion and dust control, spills, and other human health and environmental hazards, such as contaminated soils or water.	
		7. Emergency procedures, including:	

		a. A list of preventive measures and site controls	
		b. A map of locations for installed site controls	
		8. Procedures for inspection and maintenance of preventive measures and site controls	
		9. Procedures for corrective action for non-compliance with the plan	
		10. Expected staff training needs	
PR-09 Waste Management (Required)	Establish, implement, and maintain a formal Construction and Demolition Waste Management Plan (CWMP) during Project construction. The CWMP must clearly describe the plan for implementing, communicating, monitoring, and maintaining appropriate recycling and diversion practices on site. The CWMP must be in place at the start of construction and cover all project activities, including subcontractor work.	1. Type of construction waste	*Section of this plan xx,* *Or* *Note alt. document the evidence is located in.*
		2. Expected or actual tonnage	
		3. Costs and fees for landfills, recovery facilities, and hauling	
		4. Contact information of the party responsible for hauling	
		5. Destination of waste (e.g. recycling facility, landfill, contractor's backyard)	
		6. Contact information of responsible party for disposal or materials recovery site	
		7. Locations of site receptacles	
		8. Diversion and recovery goals and targets	
		9. Proper handling for recyclable or reusable materials	
		10. Training requirements for all site employees related to waste management and recycling	
		11. Means of corrective action	
PR-10 Noise & Glare Control (Required)	The Construction Impact Mitigation Plan (CIMP) must address, at minimum, the following construction impacts together as one plan or as separate plans: noise, vibration, light, glare, and other activities anticipated to create nuisance or disturbance to surrounding communities. Provide evidence against each type of impact.	1. Identify the responsible party for mitigation activities, their contact information, their responsibilities, and their qualifications. Include information if any portions of the CIMP were prepared by an outside party.	*Section of this plan xx,* *Or* *Note alt. document the evidence is located in.*
		2. Identify the location and distance to the closest receptors for noise, vibration, light, and glare.	
		3. Describe the surrounding zoning and parcel information (i.e., commercial, residential, hospitals, schools, parks, sensitive habitat).	
		4. List proposed construction activities (e.g. demolition,	

		excavation, paving, bridge foundations, finishing).	
		5. Identify dates and working hours of proposed construction activities.	
		6. List noise-, vibration-, light-, glare- or other nuisance-generating devices that are used during each construction activity listed in step 4.	
		7. List mitigating devices and reduction strategies used during each construction activity listed in #4, including: a. Personal safety equipment requirements for all site employees.	
		b. A map showing the locations of any installed controls (include mitigating devices or strategies for construction phase activities only; for permanent controls, see AL-7 Noise and Glare Reduction).	
		8. Identify procedures for inspection and maintenance of preventive measures and site controls.	
		9. Include permit numbers and agency or local authority policies associated with construction work, as applicable.	
		10. Describe monitoring standards, methods, and acceptable levels.	
		11. Describe correction procedures for non-compliance.	
		12. Outline expected staff training needs.	
		13. Include the signature of the responsible party.	

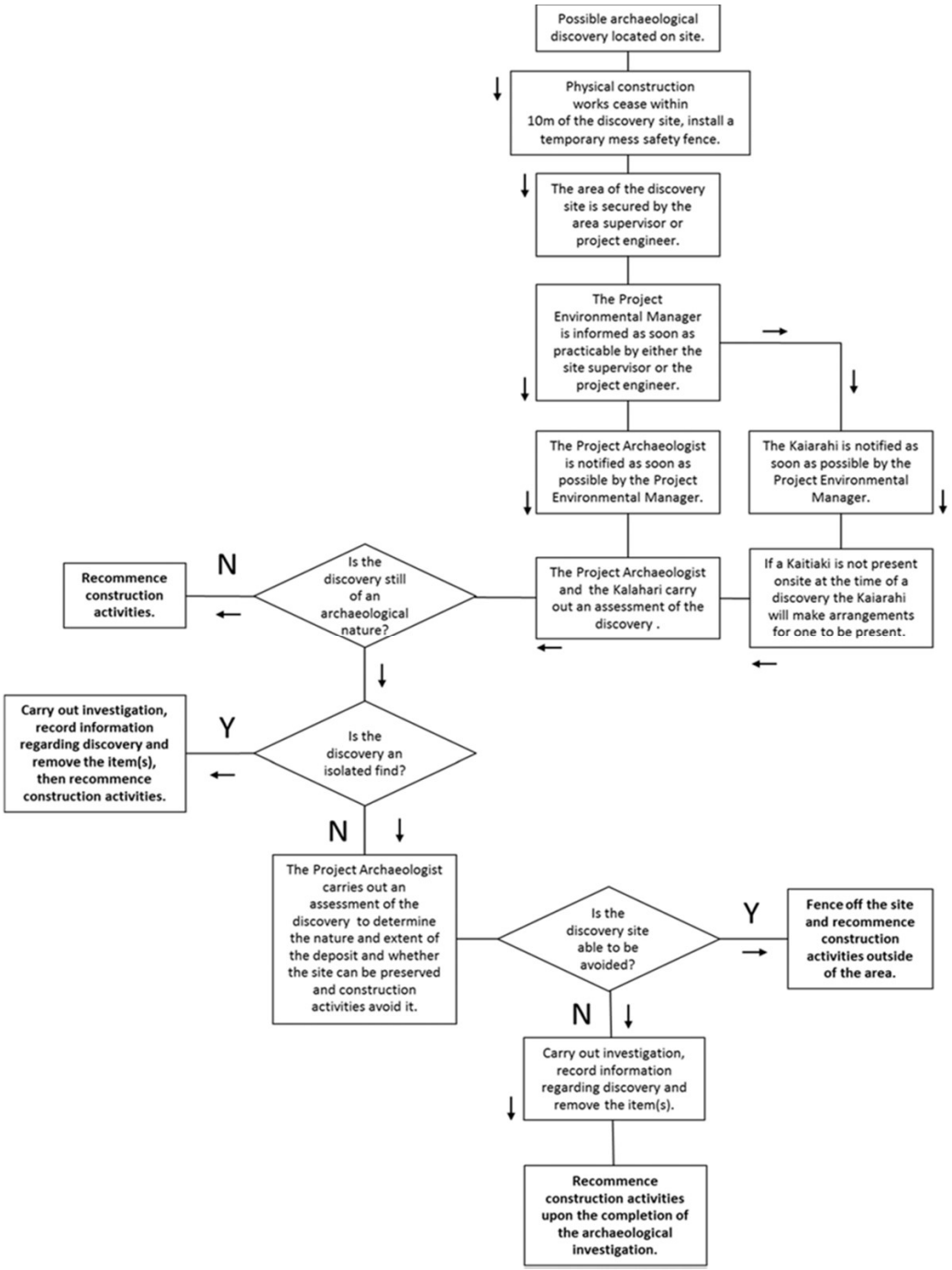
H

Appendix H – Monitoring Audit Schedule

Year	AUDIT TYPE	ENVIRONMENTAL AUDIT SCHEDULE - Te Aha A Turanga: Manawatū Tararua Highway				
		Date of Audit	Site	CAMs#/Comment	Focus	Auditor
Month	E38 Monthly Zone self-assessment				Project - On site operations	Environmental Manager
	Weekly Internal ESC audit				Site inspections - Erosion Sediment Control	Erosion & Sediment Control Team
	Weekly Internal ESC audit				Site inspections - Erosion Sediment Control	Erosion & Sediment Control Team
	Weekly Internal ESC audit				Site inspections - Erosion Sediment Control	Erosion & Sediment Control Team
	Weekly Internal ESC audit				Site inspections - Erosion Sediment Control	Erosion & Sediment Control Team
	Weekly External ESC audit				ESC Compliance audit - HRC	HRC Monitoring Officer
	Weekly External ESC audit				ESC Compliance audit - HRC	HRC Monitoring Officer
	Weekly External ESC audit				ESC Compliance audit - HRC	HRC Monitoring Officer
	Weekly External ESC audit				ESC Compliance audit - HRC	HRC Monitoring Officer
	E39 Divisional Self Assessment (6 monthly)				Divisional Self Assessment	National Environmental Manager (Major Projects)
	E18 EMS Implementation Tool (6-monthly)				EMS implementation - Systems focused.	National Environmental Manager (Major Projects)

Appendix I – Archaeological Discovery Flowcharts

Accidental Finds Protocols



Koiwi (Human Remains) Protocol